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## The New Milk Product.

Use of dried and powdered milk as a food preparation is fast increasing. The cheap preparation is made from skimmed milk, and the growing demand is likely in time to improve the market value of creamery and factory byproducts, both skimmed milk and whey.

The apparatus for the manufacture of the powder is simple, so that it can easily be attended to by the ordinary help in creameries. It can also be used for the evaporation of whey. Important results are anticipated from the utilization of skimmed milk for the manufacture of this powder, which can be used as a human food, in bread-making, for puddings and numerous other household purposes. Considerable advantage is claimed for the powder over protein foods manufactured from milk, like protease, protein, etc., both on account of lower cost of manufacture, and because the albuminoids of the milk are present in the powder in the right physiological condition for use as a food material. The latest method of making milk powder, as described by a Danish scientist, is by evaporation of whole or skimmed milk in vacuum pans something on the principle used in evaporating maple sap.

The powder is fine and white, dissolves easily in water and then resembles milk closely in appearance, flavor and taste. It keeps well as a powder without souring or molding. The cost is stated at not over one-half cent per quart of milk evaporated. If another half cent is allowed for cost of the milk, the factory would be able to turn out the equivalent of a quart of skimmed milk at a cost of one cent. The chance for profit is apparent as soon as the product has come into more general use.

## A Wonderful Guernsey Cow.

The registered Guernsey heifer, Dolly Bloom, has just completed a most wonderful year's milk and butter fat record. This record has been made under the rules and conditions for the Advanced Register of Guernsey cattle which requires the supervision of an agricultural experiment station. In this instance a representative of the Massachusetts State station saw and sampled the milk of this cow each month and reported the results thus obtained. The inspector also reported various weightings of milk as check weights. The owner reported the detailed weights of milk for each day and statement of feed and care.

Dolly Bloom calved March 22 and started her record March 26, 1902, when twenty-three months old, and completed it March 25, 1903. During this time she gave 8841.58 pounds of milk, with an average per cent. of 4.13 butter fat, equal to 453.36 pounds of butter fat for the year.

The requirement for the admission of this cow to the Advanced Register was six thousand pounds milk and 250.5 pounds butter fat. Her production greatly exceeded this requirement. The record made is the largest record of a year's production of butter fat by any two-year-old heifer in the world that can be found recorded, and at the same time supervised by any representative of a public institution or an organization.

After calving, her feed for the rest of March was gradually increased until it reached five pounds shorts, fifteen pounds ensilage and clover hay ad libitum. In April six pounds shorts, 12 pounds old process oil meal, 12 pounds gluten, twenty pounds ensilage and clover hay ad libitum. In May the grain ration was increased by one pound of corn meal and remained the same until November, the cow being turned out to pasture during the season, and also given green clover, peas, oats, millet. During the summer she was out in pasture until heat of day, and at noon was fed green stuff in the stable. If weather was hot she was turned out at night and stabled in day time. She had the same care and feed as the other cows of the size in the herd with regard to general way of handling. She was milked only twice a day and stood in a standing stall.

From November to March she had the same grain ration, also twenty pounds of ensilage, forty pounds of carrots and mangels mixed, and plenty of clover hay. Dolly Bloom was bred by Mr. Ezra Michener of Michener, Pa., and dropped April 14, 1900. Her sire was Dr. Van 3846, and her dam, Quetta 1185. Their breeding goes back to such noted animals as Bonny Boy, Fernwood Lily and Imported Pacific. Dolly Bloom is owned by Mr. F. L. Lohr of Ames of Boston. Mr. Ames takes great pride in his small but choice herd of Guernseys as his beautiful estate, "Langwater," in North Easton, Mass., and the work of this cow is a great pleasure to him.

This heifer bears unquestionable testi-

mony to the capabilities of a Guernsey cow. She is one of forty Guernsey cows that have made official yearly records of butter fat and been admitted to the Advanced Register, the records varying from 296 pounds to 602 pounds (equivalent to 346 and 702 pounds butter).

WILLIAM H. CALDWELL,  
Peterboro, N. H.

## Draining by Cultivation.

An article headed "Large Tile for Wet Season," by Irving D. Cook, Genesee County, N. Y., advises in many sections the use of larger tile. There are so many conditions of moist land that no general rule will apply.

It is my best judgment that no tiling should ever be put in until the land has been graded. After that is done, or when it is found that by the use of correct surfacing the water cannot be run off, then put in the least possible amount of underdrainage necessary to take off the water. The fact is that in many cases the land is by far too much underdrained. When the dry weather comes the crops suffer for the want of subsoil water. We must stir the soil more and underdrain less. Lift and dry the soil, give it more sunshine and air, grade, stir and dry, and keep a perfect subsoil connection. Many tons of water can be sent into the air from an acre in a clear day, and new life taken into the soil. Try this new method of cultivation in a small way and watch results before putting in the large tile or any tile at all. I have tried it both ways and now use no tile. GEORGE M. CLARK,  
Middlesex County, Ct.

## The Poultry Business in New England.

The alleged decline of New England as a poultry section, as suggested by Mr. Willis in his readable article on the Orpingtons, need not be taken too seriously. A majority of the leading breeds have been originated or developed in New England. This form of activity is still at work, as shown by the recent sending forth of the Rhode Island Reds and their relatives, the Buff Rocks and 'Dotties, which have enjoyed a more rapid growth in popularity during the past half dozen years than any other class.

The Boston Poultry Show is still the largest of all, and its awards are eagerly sought as a guarantee of superior merit. On the commercial side, there are more poultry specialists than elsewhere, and some of the largest poultry farms are there located. The Boston poultry market is considered the best of all from the shipper's point of view. It is true, however, that other sections are gaining ground, relatively, as poultry sections.

This fact is in some ways really to the advantage of New England, since it enlarges the demand for superior stock, of either old or new breeds. The advance of a section in commercial poultry raising is always followed by an increase of interest in pure-bred stock, and finally culminates in a demand for the best and highest priced breeding stock that can be had. The well-established breeders in the older sections are certainly obtaining their full share of the best of this class of business, and during the past few years there has been something of a scarcity of the best stock of popular breeds, owing to the demand from the West and South. In order to increase their output quite a number of well-known breeders have farmed out a part of their stock on terms more profitable to the farmers than ordinary poultry raising, while hundreds of the breeders themselves have doubtless been clearing handsome incomes.

Although poultry-keeping for marketing eggs and meat has grown rapidly in New England, and has also improved in grade of the output, it is plain that the greatest relative increase has been in the production of pure-bred stock and eggs for hatching. The market for these higher products of the poultry industry has become quite stable and assured. High scoring birds, even of the older breeds, have never been too abundant to command a high price, and probably never will be. Cost of food makes no great figure in their production, and high express rates do not prevent their shipment to the more distant parts of the country. Hence the prestige of breeders in the Northeast will depend, as in the past, almost wholly on themselves. The cream of the trade goes to men of skill, enterprise and energy, wherever located.

## Importance of the Corn Crop.

With perhaps the exception of hay, corn is the most important crop produced upon the farms of this country. In some of its numerous varieties, it is adapted to nearly all parts of the United States. With proper management it is generally a successful crop and adds largely to the feeding resources of the farm, and the grain as an article of commercial importance is becoming more prominent every year.

Its production simply as a fodder crop, to be used entirely for that purpose without husking, has been greatly on the increase of late years in New England, and especially in Vermont. Probably not more than one-fourth of the corn raised here is of the old-fashioned variety, known as field corn. It is probably also that nearly or quite three times as much land is devoted to this crop as compared with the amount grown twenty-five years ago, or before "fodder corn," as such was known. The growing of so much corn necessitates a shorter and more profitable rotation of crops for our farms, and makes a large increase in their feeding resources.

It is well for farmers to raise a limited amount, at least, of the common field corn to husk, as it is a very profitable grain to have for a variety of uses, and will save some outlay for other kinds of grain.

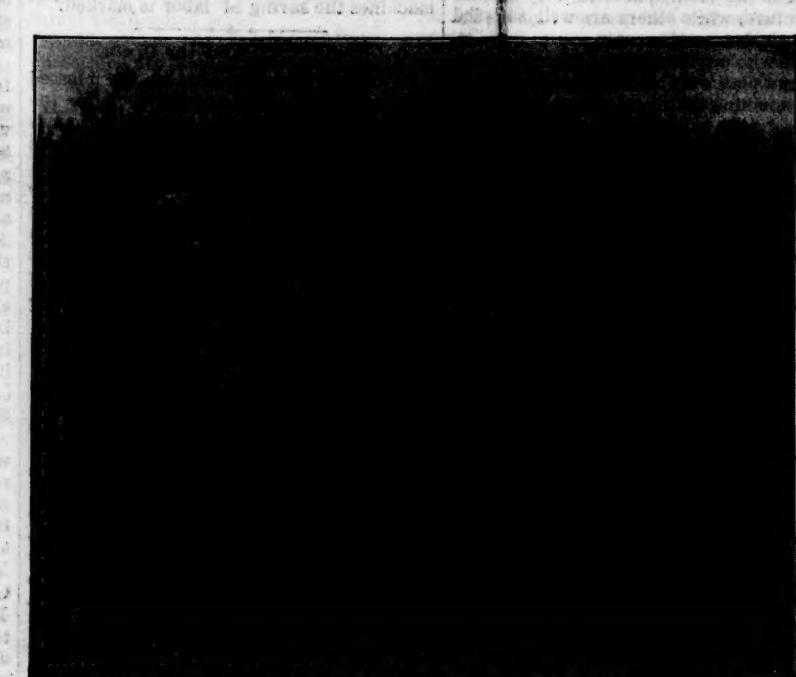
With present facilities for growing corn,

a large area can be much more easily managed than was the case before the advent of improved implements and machines.

In speaking more particularly of corn grown for fodder, to be fed green or put in the silo, it is quite important that it be planted as early as the weather and condition of the soil will admit, instead of late in the season. Early planting favors an early maturing of the crop and getting it well secured before the advent of bad or frosty weather.

Good corn land, as we term it, is of the first importance, and then to have it properly prepared previous to planting quite as necessary.

Where this is done much work will be saved in the after cultivation. Corn is considered a grass feeder, and if large crops are expected there must be adequate fertilization. In our own experience we prefer



CHAMPION GUERNSEY COW, DOLLY BLOOM.

green sward to old land, although both are used.

On old land that has been in grass not over three or four years, we get excellent results with only three hundred pounds of superphosphate to the acre used in the hill. But this is on good land. Where a second crop is planted on the same land, manure should be applied broadcast, well harrowed in, and then we would not omit the phosphate in the hill or drill. It is very useful in giving the crop an early start, and that is what we want up here in northern Vermont. Would never plant by hand where it can be avoided. Use a machine that will drop the fertilizer, plant the corn and mark the next row, all at the same time, and do it better than could be done by hand.

Quite a number of varieties of corn are being used for this purpose. For feeding green it is well to have an early, sweet kind, but for the silo or to cure for winter use, some of the larger and more productive kinds will do best. There are always some of these better than others for particular localities. Perhaps no one variety is so extensively used as the Sanford, and it has maintained its reputation for many years. It is next to the sweet varieties in quality and is hardy and productive.

By the way, can any who read this tell where this corn originated? I have tried to find out, but without success. It was first brought to the attention of farmers of northern Vermont by the late Dr. Hathaway of Milton, many years ago. It is good to feed in the silo, or to cure to feed dry, to put in the silo, or as a field crop, to husk farther South, as it is a little late here.

Last year was quite generally unfavorable for the corn crop. Such seasons are rare, and farmers will do well to plant extensively again, as corn makes a large addition to the feeding resources of the farm in its various forms. Particularly with a short hay crop, as is sometimes experienced, will it prove of the greatest value as a substitute. A crop of corn, well fertilized and cared for, is one of the best preparatory steps to the crops that are to follow. Franklin County, Vt. E. R. TOWLE.

## Some Progressive Farm Specialists.

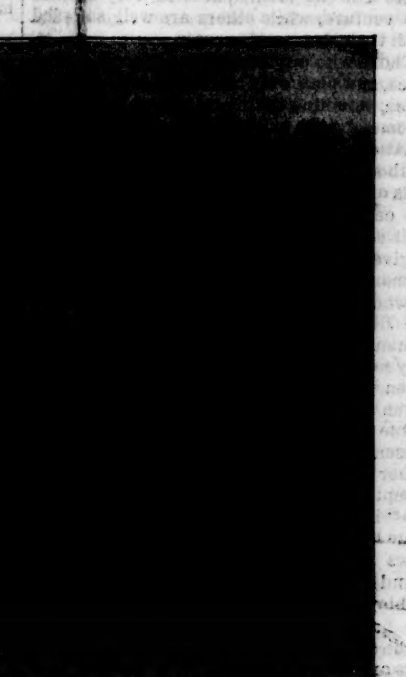
At Monson, Mass., I found that George C. & Lyman Flint of the Flint Granite Company are extensive farmers as well as quarrymen, contractors and retail merchants. Besides having a fine lot of team horses and light-harness trotters, they are large dealers in milk cows, and keep regularly about one hundred for milk production and farm improvement.

Lyman Miller of the same town, as I have noticed for several years, can show as good an object lesson on a small scale as is often seen on a hilltop. On his small farm of only twenty acres, including four or five in pasture, he keeps about twenty head of cows and horses in extra good order, and produces almost their entire food on those acres. He does it by Grass King Clark's style of cultivation, and by making every acre yield its best. He buys little commercial fertilizer, and makes much of his own grass, often getting a good crop after cutting a crop of hay.

Arthur Goodell of Millbury does not believe in silos, but says the acid formed in making silage lessens the value of the manure. What says the wise ones to the statement? He has a power cutter and steams his fine-cut cornstalks as he feeds, daily, with some grain, and claims the best of results.

Mrs. C. P. Scott, Holden, Mass., is a very successful poultry and egg producer. From about 175 extra smart chickens in April, she winters from one hundred to 150 hens and considers the income as good as that from six cows. Mrs. Scott does the main work in their case herself, while Mr. Scott runs the rest of the farm.

G. C. Bond of the same vicinity, whose farm lays across the valley south of the State sanitarium at Rutland, Mass., makes potato raising his great forte and has good success. He plants only small-sized ones; none over medium sized. He has followed the practice for many years in succession and finds no deterioration in size or total yield. He raises large ones and takes the premium at State and county fairs right along. Mr. Bond uses commercial fertilizers, which he thinks the best to produce smooth, healthy



CHAMPION GUERNSEY COW, DOLLY BLOOM.

tubers. His favorite sorts are Puritan, Currahee and Maine's Thoroughbred. The sanitarium generally wants most of his crop of one thousand to 1500 bushels.

A Westboro farmer, B. W. Hero, who has an orchard of 4000 young peach trees, and who gathered 800 bushels of fruit last season, says the fruit buds are almost entirely dead on his trees, as do others in this section. But Mr. Hero, true to name, will put out another 1000 trees this year.

Over the whole State April was a standstill month till its last day or two. But nature with some setbacks now seems inclined to give the farmers seed time.

H. M. PORTER,  
Worcester County, Mass.

## Cream from Pomace Silage.

One of the best known farmers of eastern Massachusetts is N. B. Douglass of Sherborn, past master of the State Grange and a welcome speaker at numerous meetings of farmers and dairymen. Mr. Douglass is located near the village centre and has an attractive set of farm buildings neatly painted and well arranged.

## A SATISFACTORY CATTLE BARN.

Quite recently he has put an annex to his barn in order to give the cattle more light and air. This building is quite a model in its way. There are stalls more than enough for his herd of twenty-five handsome Jerseys. In front of each stall is a swinging manger, which allows the cow to reach all her food without stepping back into the gutter. The stall floors are of square wood blocks set on end grain uppermost to prevent cattle slipping. These blocks were sawed from butt ends of farm timber and cost next to nothing. The blocks are covered with plenty of sawdust and planer chips. A flat board runs the rear of the floor and under the cow's hind legs keeps the sawdust from getting into the gutter, which is about six inches deep.

## CLEAN, HEALTHY COWS.

A chain behind the cow keeps her in the stall. The cows appeared perfectly clean, and they very seldom soiled themselves. Back of the gutter is a concrete walk; overhead is a trolley track with a car for carrying off the manure. The building has plenty of large windows and a very ventilating chutes, which take the air from near the floor and discharge it from the roof. There is no odor perceptible, and the owner says it is equally free from bad smells in winter and summer, and that the water does not freeze in the barn.

## A SUPERB OF POMACE.

During the writer's visit just after the evening milking time, the hired man was moving down between the two rows of cows, pushing a wheelbarrow full of apple pomace, which he shoveled into the mangers with a coal scoop, 10 or 12 pounds per cow. This pomace ration is, perhaps, the most interesting feature of the management. It is fed more or less the year round. The cows had not been turned to pasture, and were receiving a full ration which is given in two feeds, 20 to 25 pounds a day, also what they want and a liberal feed of grain.

## GOOD CREAM AND MILK.

"Do you get any peculiar flavor from the pomace?"  
"No, it doesn't seem to affect the milk. We sell the product in the form of separator cream, which is taken by re-allers in Natick and Wellesley (large towns adjoining). We have had no complaints. The skim milk is

wholesaled at about one cent per quart. Other farmers who feed pomace sell milk at retail and have no trouble with customers."

One of the largest cider mills in the world is located in Sherborn, and hundreds of tons of pomace are sold at a very low price to farmers. Mr. Douglass and some other dairymen consider silage from pomace equal to that from corn as a milk producer. The silage now being fed appears as sweet as the pomace commonly fed in the fall season.

"If pomace is so cheap and good, why do you not feed more than twenty pounds per day?"

"That is about all a cow will eat. She needs variety and a balanced ration. When we first begin to feed it, a cow will shrink in milk yield if overfed, just as when given fresh apples. As soon as she gets used to it, the quantity may be increased without bad effect."

"Is it all kept in a silo?"

"I had room for only about one hundred tons here. I put twenty tons more in a large shed, putting boards on the floor. The shed was far from air-tight, but there was no great waste of pomace, which is more compact than corn ensilage and is kept more easily. It changes hardly at all after being put away."

## Garden Crops Injured.

One result of the recent freeze has been to increase the call for vegetable seeds. Boston seedsmen report that many of the gardeners have been buying new supplies for replanting crops killed by the frost. Tender vegetables which had come up were killed outright, and the early plantings of some hardy kinds were kept back so long that the seed sometimes rotted in the ground, causing gaps and thin rows. Heavy loss is reported in Arlington, Belmont, Concord and Woburn, Winchester, etc. The corn and beans planted about two weeks ago were frostbitten, and it is doubtful that all the farmers can afford to reseed their ground with these varieties on account of the high prices. The price for beans for planting was nearly twice as much as the year before, while corn has gone up from \$4 to \$12 per bushel. Seeds, however, have not been advanced in price since the freeze, and dealers say they will try to fill the demand at present prices. One result is that seed buyers are not so particular about varieties, being, as one dealer said, "glad to get anything that looks like a seed." The seed trade everywhere is reported active, and the Western demand for seed for replanting is especially strong.

## Strawberries Compared.

In the test with strawberries at the New Jersey station, Bubach gave the largest early yield (1441.9 quarts), with Glen Mary second (1325.5 quarts). In the total yield Glen Mary led with 8783.7 quarts, followed by Bubach with 7672.9 quarts per acre. Of the early sort, Glen Mary was most productive in 1901, with Darling second. Sample was one of the heaviest yielding late varieties. In 1901 the unirrigated plots led in yield in all cases except early yield on one plot. During four years irrigation has been beneficial in slightly increasing the early yield only. Unirrigated plots fertilized with complete commercial fertilizers, supplemented with nitrate of soda at the rate of two hundred pounds per acre, have produced the largest early yield and the largest total yield. A fertilizer made up of bone, potash and phosphoric acid has given the largest yield under irrigation. Relative to the culture of strawberries in hills or in matted rows, it is stated that beyond question some varieties are better adapted to hill culture than others. Nineteen varieties in 1901 gave greater returns from hill culture than from matted rows. In 1900 but eleven varieties gave increased yields in hill culture. Some of the most productive varieties in hills are Margaret, Ideal, Bubach, Glen Mary, Hall Favorite and Sanford.

## Orchards on Poor Soil.

In some localities where the soil is too poor to raise crops with profit it may be the most economical cultivation for an orchard to use a disc harrow. Where field crops can be grown it is best to plant only such crops as can be cultivated except the cow-pea, which may be drilled in and harvested without cultivation. To sow oats, wheat or other small grain in a young orchard and let the same grow to maturity and harvest same, is to invite disaster to your trees. They may not die, but you will in nine times out of ten have cause to regret your action. Savoy, Ill. HENRY M. DUNLAP.

## The Practical Fruit Grower.

For several years now growers and experimenters have been testing the String-fellow method, which consists chiefly in very severe root pruning when transplanting young trees. The average results indicate that the system probably has no great general value.

In Australia, for most purposes, a form of the bordeaux mixture, which consists of six pounds of copper sulphate, four pounds of lime and fifty gallons of water, is preferred. In order to increase the adhesiveness and spreading power of the fungicide, good results have been obtained where one pound of salamoniac, saltpetre, or salt was added to every fifty gallons of bordeaux mixture.

Some experiments on the subirrigation of raspberries, currants and gooseberries, by plowing out a deep furrow, placing tile in this and planting the fruit over the tile, have been conducted at New Brunswick, N. J., for four years, but have not given satisfactory results. In only two instances have the subirrigated plants given better yields than the controls. The difficulties of keeping the line of tile open are thought to be too great to render the use of tile for subirrigation of these fruits practicable.

Of the pears grown at the Michigan station, Bartlett, Bloodgood, Elizabeth and Giffard are recommended for summer use; Bosc, Anjou, Duchess, Howell, Keiffer, Seckel and Sheldon for autumn, and Dana Hovey and Winter Nells for winter.

## Cold Storage for Pears.

Some new points on cold storage are offered by W. J. Sheldon, an English fruit grower, who has practiced the system for several years.

"I find the fruit to keep for any time," he writes, "say, one or two months, must be sent into storage before it is ripe, and be very carefully examined to see that every fruit is perfect, and the slightest injury will prevent its keeping."

"I have had pears in storage about a month, that were nearly ripe, but perfectly sound when sent in, and although carefully packed in open-sided boxes, and only one layer of fruit in each box, seventy-five per cent. were bad when returned."

"On the other hand, I have sent pears that were green when gathered in September, into storage, and examined them there in the following December, January and February, and found them in as near as possible the same condition as when gathered; after February they were taken out to see what effect the open air would have upon them—I might say the storage was kept at a temperature of 33° F. during the whole of the time the fruit was there. I found the fruit took about the same time to ripen as it would have done at the time of gathering—viz., about fourteen days, and the color and general appearance was quite as good."

"There is a little unpleasant taste in the fruit when it first comes out of storage, but that soon goes off."

## Too Dry for Grass.

This is a somewhat remarkable spring. Snow was practically all gone the first week in March, and it has been warm, as a rule, ever since. The ground is dry and all ready for the seed. But it is dry for grass, and forest fires are beginning to show themselves. The drought is hard on the grass, though it came through the winter well and seems thick on the ground.

June is the month that tells on the hay crop. If we have a wet June we get a good crop of hay, but the pastures don't start this dry weather. Very few have turned out their young stock.

Plowing was pretty well done last fall. I think there will be about the usual amount of plowing and sowing, with perhaps a little gain in ensilage crops. Farmers are depending more on it for lengthening out their pastures. Help is high and hard to get at any price. But machinery helps out wonderfully. D. H. THING,  
Maine.

## Crop Conditions Uneven.

Following is the report of the United States Department of Agriculture, climate and crop bulletin of the weather bureau, New England section, for the week ending Monday, May 4:

Although the week was well adapted to plowing, harrowing and manure hauling, there was but little seeding done. The high, drying winds that prevailed benefited low, wet lands, but uplands, in some cases, were too dry to plow to advantage. There was some sowing of oats in the northern States, with some yet to be sown, while in the south their seeding is about completed. There has been some planting of garden vegetables and potatoes, but probably not as much as usual for the season of the year. In parts of Rhode Island and Connecticut, gardens are very well advanced, with peas in blossom and potatoes up. Their growth has, however, been slowing down to the dry condition of the soil.

The high temperatures of Wednesday and Thursday brought a marvelous change to fruit trees, the buds that had been nearly dormant since the first of the month showing a phenomenal growth in the two days. Friday, however, the temperature fell slowly, and Saturday morning found the ground frozen and ice formed in most of the districts. In the north it is hoped that the apple buds were not far enough advanced to be greatly injured, while in the south it is difficult to determine the amount of damage, but there is no doubt but what it will be considerable in many orchards. The generally expressed opinion is that previous to this last frost, the prospects were favorable for at least a fair crop of all fruits, except peaches. Where strawberries were in bloom there was some damage done to that crop.

Grass and pastures are suffering from lack of rain, and the latter do not furnish sufficient feed for the cattle. It is not thought that grass has been permanently injured, but will come forward under the favoring influences of rain and warmer weather. Tobacco beds have been held back somewhat, and some will have to be planted a second time. Some little is in good condition, and a small amount of setting will be done the coming week.

## Western Fruit Buds Injured.

Growers in the Central and Southwestern States appear to have suffered more severely than others from the recent freeze, if current reports are confirmed by later developments. Complaints from the whole central district from Michigan to Tennessee allege that 50 to 100 per cent. of the next fruit crop has been destroyed, the damage affecting small fruits, peaches and sometimes apples. The present outlook is for high prices of fruit throughout the season.

The man who will devise a remedy for the melon louse and melon blight will confer a great favor on the melon grower, and perhaps secure a good competency for himself. —A. Chandler, Randolph, Mo.



**CROSBY PEACH.**  
See descriptive article.

—The famous North Sea island of Heligoland, and which is a little more than a mile long; is gradually slipping away from Germany. The cause is geological, however, instead of political. The island eight centuries ago was five times as large as now, and late investigation has shown that nothing can be done to stop the disintegration, which is particularly rapid in the region of the grottoes on the western side. The rock of the island contains much salt, which is steadily dissolving in the sea.



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### Poultry.

#### The Orpingtons.

When I was a lad in Ipswich along in the fifties, the only agricultural papers that came to the family were the Boston Cultivator and the Massachusetts Ploughman. From these I got my early poultry education, the supply furnished by them being, however, extremely limited in space. I am pleased to know from the copy of the American Poultryer sent me that the former still holds its leading position, with its name broadcast to American in place of Boston. The poultry paper does not yet appreciate that the agricultural and poultry world ceased to revolve around the Hub when civilization crossed the Missouri river.

In the early fifties Boston was the centre and Hub of the poultry industry. Burnham was its prophet and leader. Its prophet, because he foresaw the "hen fever" of those days, and brought from Queen Victoria's pens a trio of fowls which made him the leader of the chicken craze which followed his importation. Every State then in the Union sent to Boston for the new birds, paying fabulous prices; many came from afar to the poultry yards of Boston and vicinity and waited for eggs while the hens laid them. Burnham made a fortune and wrote a book. Boston was the very Hub in truth, and some persons yet live there who think she keeps this position in the poultry world. Others know better, and have enlarged their vision like the American (and not Boston) Cultivator. With the opening up of the country by the westward tramp of the Eastern men a new condition has come to exist. Now the leading poultry States are found in the West, and the East is tributary to them. Millions of eggs and thousands of fowls pack refrigerator cars from Ohio and beyond for the supply of the Eastern markets. Improved breeds of fowls for producing more eggs and better flesh are eagerly caught up and set to work, while the Hub stilling to the fowl of generations back.

While Boston breeders were talking feathers and show points, as if they were the only desirable qualities in a fowl, an Englishman was pegging away in the persistent fashion which Englishmen have to produce a variety of fowls, of which the first and most prominent requisite should be large egg production in the winter season and the very best flesh-producing fowls for the table. Beauty came with the fowls, but was an attendant and not a requisite of the making so much. These new fowls, when matured from the mind of the originator and launched on the markets of Europe, produced a complete revolution in the poultry world. Where few eggs had been produced or expected in the winter season, the keepers of the new breed began to report that they were never without eggs at any time of the year. The craze for the new breed spread rapidly, crossed the narrow bounds of England into Germany, Holland, Russia, crossed the ocean to Australia, the seas to Africa, gained a footing in Canada, jumped the border into the poultry hubs of our country now at the West, and are rapidly working eastward to finally take the Boston and New England poultry trade captive, notwithstanding all old traditions about the fowls of generations back.

This remarkable variety of fowls is called the "Orpington" by its originator, from the name of the village in Kent, England, where he made the making of them the study of his life. This originator, Mr. William Cook, who has but recently left our American poultry shows behind him, travels far and wide with his Orpingtons to meet the constantly increasing demand for these remarkable birds. In February he was in Belgium with his birds, and won many prizes at the great Brussels show. This month he starts for South Africa with three hundred birds. Australia keeps him active at her many poultry shows. Twenty-eight thousand fowls are produced now yearly by this poultry man, and yet the demand is not satisfied. Under date of April 6, he writes: "Last week we sent out to English and foreign orders 937 birds and over five hundred settings of eggs."

"We are collecting on our home place now one thousand eggs a day and selling almost every one as they come in." Such is a little of the story of the Orpingtons and their martial tramp around the world, making their way by their own intrinsic value. All the varieties of Orpingtons are alike in the qualities of prolificness, size and beauty. They cater to the taste of all as to colors. Some persons prefer parti colored birds, and these have the Jubilees and Spangled, in red, black and white mixed and black and white. Others prefer the one color, and for these are pure blacks, extremely pure whites and the golden buff. The blacks have the most beautiful beetle-green seen in their plumage ever seen. The Boston poultryer has just two advertisements of Orpingtons in its April 15 number. The New York poultry paper printed at Syracuse has thirty-eight Orpington advertisements in its April number. Every Western poultry paper carries a good line of Orpington ads, and orders for eggs reach me from nearly every State in the Union, and many from the Pacific coast, where the craze is certainly well along. The Jubilees were favorites with buyers at the Boston show and were taken by breeders who supply the Boston market with eggs and market fowls, so that among the travelers abroad, who have been accustomed to enjoy the delicate flesh of the chicken on the Continent, will be able to taste such at home.

The Orpingtons have a club, the American Orpington Club, started two years ago at Madison-square Garden, with nine members, and now numbers eighty members, only those which are from Massachusetts. The Orpingtons have a paper of their own, the first specialty paper ever published devoted entirely to the interest of one breed. There are but thirteen subscribers from Massachusetts, but the paper in its second year has enough subscribers to pay its cost without entering to an advertising clientele. Thus you see the Hub, led by a generation back idea which prevails there, is very backward about coming forward with the new

breed, but as the Orpington has a foothold of from two to thirteen breeders in Massachusetts, it will prove like the traditional camel who got his head inside the tent. The Orpington is, above all, the farmer's fowl. Its large size, quick growth, heavy egg production in winter months and fine appearance in the green fields and orchards are an improvement in fowling that the farmer will appreciate and accept. A \$5 Orpington cock, not fit for exhibition, is just as good as the exhibition fowl for improvement of the mongrels on the farm. Mr. Cook says his best customers, on account of numbers, are the farmers of Europe.

WALLACE P. WILLET.  
East Orange, N. J.

#### Poultry and Eggs Steady.

Following is the situation as specially reported by W. H. Rudd, Son & Co., Boston. The stock of frozen poultry throughout the country is cleaning up in good shape, and prospects are favorable for a continuance of good prices for several months to come. There is a large amount of fowl throughout the Western States, but the unusually high price of eggs in that locality has induced farmers to hold the stock back, and receipts in the East have been much lighter than for several years past, with prices ruling unusually high. At the present time receipts are increasing somewhat, but best dressed fowls are readily commanding fourteen cents, with live stock bringing only about a cent under this figure. Receipts of fresh-killed broilers from nearby points, while fairly liberal, are hardly sufficient for the wants of the trade, and receipts are closely sold up on arrival. The weights most in demand are those dressing one pound each, which are quotable at 90 cents to \$1 per pair. Large broilers, dressing three pounds to the pair, are bringing 30 cents per pound for best stock. Reports from the West indicate that, notwithstanding the warm weather in March, the spring hatchings will be somewhat later than usual, and advices from the large shipping points of the West show that up to April 1 there are but very few chickens on the farms. The indications are that broilers and roasters from nearby points will command unusual high prices during the next two months.

The egg market has held unusually steady, and late receipts of Western eggs, packed for storage, have sold at 16 cents. Nearby eggs command but little advance above this figure, as the stock is running fresh at this time. Beauty comes with the fowls, but was an attendant and not a requisite of the making so much. These new fowls, when matured from the mind of the originator and launched on the markets of Europe, produced a complete revolution in the poultry world. Where few eggs had been produced or expected in the winter season, the keepers of the new breed began to report that they were never without eggs at any time of the year. The craze for the new breed spread rapidly, crossed the narrow bounds of England into Germany, Holland, Russia, crossed the ocean to Australia, the seas to Africa, gained a footing in Canada, jumped the border into the poultry hubs of our country now at the West, and are rapidly working eastward to finally take the Boston and New England poultry trade captive, notwithstanding all old traditions about the fowls of generations back.

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The Crosby peach has been quite popular in the northern limits of the peach-growing section, because of its supposed hardiness and reliability. Experience of the past few years has given the impression that the variety has been overrated in this respect, since it has not proved a much surer cropper than a number of other standard kinds.

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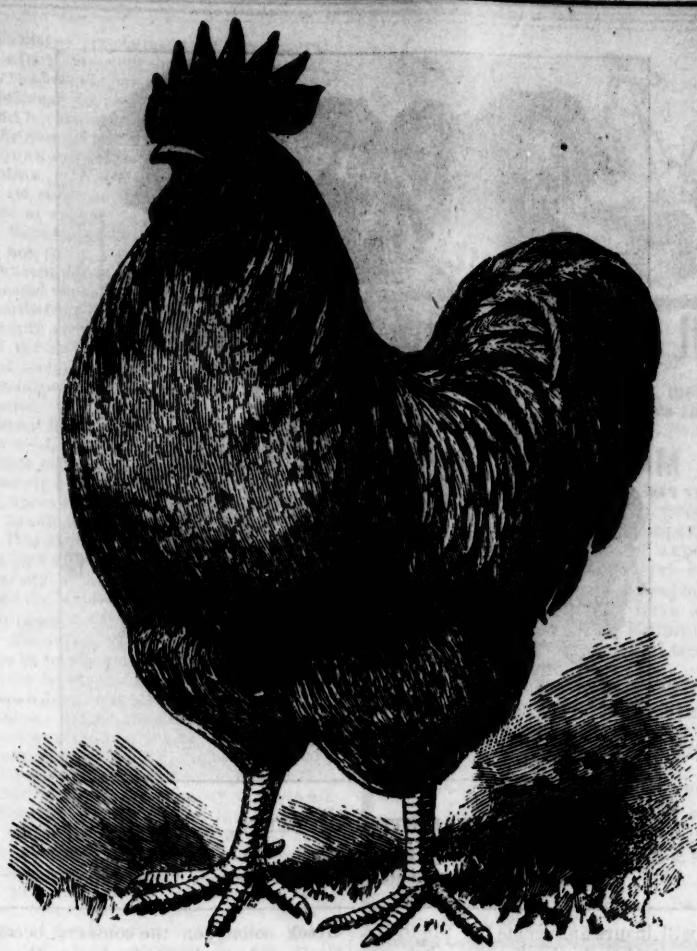
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BUFF ORPINGTON COCKEREL.

are reported at 85 cents. Some Boston dealers report general potato prices a little firmer and demand better.

Good onions are less plenty and full quotations are increasing somewhat, but there are still some poor lots, hard to sell. At New York potatoes are in light demand, with prices slightly weaker. New potatoes are becoming quite plenty. Receipts of potatoes for the week, \$3,679 barrels. Onions show no special change. Fancy lots sell readily, while poor and sprouted stock is not wanted by buyers at any decent price. Old beets and carrots are still plenty and cheap. Parsnips higher. Squash holds steady. Hothouse tomatoes and cucumbers are plenty and lower. Rhubarb is low for the season. Asparagus is in liberal supply, with price declining. Green peas from the South are irregular in quality, with prices covering a wide range. Hothouse lettuce lower.

#### Apples in Fair Demand.

The local apple market is in slightly less satisfactory condition. Dealers quote practically same prices as last week, but say that sales are not made so easily. Fancy lots are selling as well as ever, and sometimes exceed quotations given. The bulk of sales are of Russets and Baldwins at \$2 to \$2.50; some from cold storage and others from cellars. The average price of cold-stored apples is higher than others, because they include fewer poor lots, besides having been mostly selected stock to begin with. Some of the cellar-stored Russets, however, are very nice, and bring close to top quotations. Some poor lots of Baldwins have been sold at \$1.25 to \$1.50.

At New York apples are in rather light supply and held firmly at last quotations, some lots selling higher than quoted.

Export season is practically over. The following shows the exports from Eastern seaboard points, what each shipped this season compared with last season and also a comparison with the biggest exporting season ever known, the memorable years of 1896 and 1897. It will be seen that that great year only exceeded the closing season by about 450,000 barrels. During the season just closed the total exports amounted to 2,496,772 barrels, against 792,128 barrels last year and 2,919,846 barrels for the season of 1896 and 1897. This season New York shipped 723,011 barrels; Boston, 806,013 barrels; Montreal, 467,777 barrels; Portland, 340,633 barrels; Halifax, 79,792 barrels; and St. John, 76,990 barrels. Including the 2633 barrels which went over the week ending April 25, the grand total is, as shown above, 2,496,772 barrels.

#### Grain Slightly Higher.

Wheat and corn have shown advances of several cents per bushel in leading markets of the country during the past week. The change in corn is slight. That in wheat seems to be caused by reports of injury to the coming crop by reason of the cold wave. The most damage seems to have occurred in the Southwest, where the temperature was said to have been the lowest on record for the season. In Texas there is complaint of drought also.

Ohio and Missouri report wheat slightly injured. The improved outlook for export of wheat has also helped to stiffen prices. Prices in Europe are higher and the supply on hand less than was supposed, particularly in France and England. The present tendency of the whole grain market continues upward. Bag meal has also advanced about 5 cents during the past fortnight. Millfeeds show slight and irregular changes. Cottonseed meal is 25 cents a ton higher. Flour quotations hold unchanged.

A Chicago shipper just returned from Europe, states that the crop damage in continents Europe is serious, and that foreign buyers have already made heavy engagements for August and September shipment, and will want the wheat; that at the present time their wants are being supplied by Russia and Argentina, but in less than 90 days they will be dependent almost entirely on this country.

A reduction of 2 cents for each one hundred pounds in the rates on grain and flour from Chicago and places on the Mississippi river to the Atlantic seaboard, has been agreed to at a conference between traffic roads and the lake transportation lines. These reduced rates will go into effect on May 11, and will continue until Sept. 30. The rates from Chicago to New York will be 18 cents per one hundred pounds on grain and flour for domestic consumption, 16½ cents on flour for export and 14 cents on grain for export. The difference of only 1½ cents per one hundred pounds between the rates on wheat and flour will enable the millers of the Northwest to compete with foreign millers using American grains.

Grain exports from Boston have been active this week. One steamer which sailed Wednesday carried 120,000 bushels of wheat, thirty thousand bushels of corn, five hundred tons of refrigerated meats, seventy-five tons of Canadian cheese, 120 barrels of older, 180 barrels of syrup, seventy-five tons of provisions, two hundred tons of hay,

three hundred tons of lumber, which includes sixty tons of mahogany logs and boards and seventy-five tons of pine; two hundred tons of sundries, one thousand tons of flour, and a quantity of agricultural machinery. Another steamer leaving on the same day carried about 5500 tons of cargo, which consists of 150,000 bushels of corn, 64,000 bushels of wheat, three hundred tons of dried brewers' grains, three hundred bales of waste and 150 tons of miscellaneous cargo. The vessels of this service are carrying two hundred thousand bushels of grain at a cargo.

During the first three months of the present year, at the North Atlantic seaboard, the four ports of Boston, New York, Philadelphia and Baltimore received 64,041,921 bushels of grain, including flour reduced to bushels, for the first quarter of 1903, and 44,308,077 bushels for the corresponding quarter of 1902. Eight wheat-receiving markets, to the end of March for the current crop year, reported 212,730,936 bushels of wheat received, against 196,732,766 bushels a year before, and in 1901 only 180,912,866 bushels.

#### Business Outlook Favorable.

Commenting upon conditions in the United States the official report of Professor Sauerbeck of England on "Prices of Commodities," says: "The United States have again occupied an exceptional position. If a year ago fears were expressed that the state of affairs there was not free from danger, it must now be admitted that they were premature, as the marvelous prosperity has continued unabated to the present day. American securities had another boom, and though a reaction followed, the last prices still occupy a high level. It is estimated that the iron production of the States reached the enormous total of 17,000,000 tons, and even this was insufficient for the requirements."

Commenting upon the prospects for 1903, the report says: "The prospects for the present year are, if anything, a little more hopeful. Adverse points in this country are still high taxation, undigested Government loans and high prices of meat; but the corn crops of the world were plentiful, the development in South Africa will no doubt be important, the condition in Australia is improving, and it is not improbable that the trade to the East and also to the Argentine Republic will also increase. In Germany the period of liquidation seems to be coming to an end, and a return of confidence may be near at hand, but the recovery after the serious depression will naturally be a slow one, which will depend upon the United States. Continued activity will benefit Europe as well, while a sudden break would cause a stoppage of American demand and perhaps a flood of American products into Europe."

#### Moth Traps a Failure.

Experiments have shown that the moth trap catches mainly males of the moth tribe, this being accounted for by supposing that they are in search of their mates. The catching of moths can only affect the coming generations, as after reaching the moth stage, all insects have passed the period of great destructiveness.

Large quantities of parasitic or leucospine flies were caught, and these were mostly females, who were evidently abroad hunting for insects whereon or in they deposited their eggs. These insects are strictly beneficial. A large proportion of the insects caught were non-injurious, or neutral, the latter having little bearing upon horticulture.

Almost none of the insects injurious to horticulture were caught. It is not necessary to purchase a patent or special trap. A lantern set in a pan of kerosene was just as effective as a specially contrived machine.

PROF. V. H. DAVIS.

#### Cover and Nurse Crops.

If there is one thing of practical horticulture that is generally misunderstood it is the so-called cover crop. We have a nurse crop sown among young trees, a catch crop whenever the occasion presents itself. For instance, an off year of fruit a leguminous crop may be grown to enrich the soil. Prof. L. R. Taft in a recent lecture described what a cover crop actually implies. It should be a crop sown in the orchard after wood growth ceases. The prime object of the cover crop is not to furnish fertility but protection. Any crop that will grow a foot high in which the leaves and snow will lodge will answer the purpose. The cover crop must protect the roots from severe freezing. Professor Taft said most peach orchards do not require nitrogen, provided the soil is enriched before planting. He also preferred a cover crop that will die before spring, so that in the spring a disc harrow can be used for cultivation. Oats will answer for this purpose. The objection against rye is it plowed early it will enhance the danger of spring frost. If postponed until the frost danger is passed then dry weather may seriously interfere and ground cannot be thoroughly prepared to hold moisture.

In reply to inquiries, commissioner H. O. Averill of Connecticut has issued a circular stating that no new cases of the cattle disease have been found in Connecticut, the quarantines permitting shipping cattle to other States. Cattle, however, cannot be taken into the States from States infected with foot and mouth disease, nor taken across such States into Connecticut. Persons buying cattle from any other State are required to notify the commissioner.

Twenty-one of the best hens in this country have sailed from San Francisco to engage in an egg-laying contest with Australian hens, which will continue for one year. Their expenses were paid by the Australian government, which will buy the six best at \$25 apiece. The others will be sold there at public auction.

The resources of Argentina as a cattle-producing country are extraordinary. Only one-third of its available pastures are at present occupied with cattle, and even those which are occupied are capable of accommodating twice as many herds and flocks as they actually hold. Moreover, to supplement natural pastures, 2,700,000 acres were within the last few years been sown with lucerne.

Dr. Jacques Loeb of the California University has succeeded in fertilizing the eggs of a sea urchin with the sperm of a star-fish. Until the successful outcome of this experiment, it had been thought impossible that animals could be hybridized which were not in close blood relationship.

The committee appointed by the Farmers Board of Trade of St. Albans, Vt., met recently and concluded to refuse the proffered offer by the E. C. Payson Company of \$8 per ton for corn, and to recommend to the farmers that they refuse to raise sweet corn at less than \$10 per ton.

The Montpelier (Vt.) Creamery has been sold to Charles Eddy of Stowe, a veteran creamery man, and possession was to be given May 1. Mr. Eddy has creameries in Stowe, Lowell and North Troy. The plant has been turning out an average of one thousand pounds of butter a day. From a recent census issued by the Irish registrar-general of marriages, births and deaths, it appears that the greatest number of deaths from cancer in that country during 1901 occurred amongst farmers (500 deaths) and laborers (302 deaths). The causes mentioned include damp subsoil, hereditary predisposition, indigestible food, such as insufficiently baked bread and the use of clay pipes, which is stated to be the probable cause of cancer of the lip.

The total imports of butter into Denmark during the year ended Oct. 30, 1902, were 4,217,101 Danish pounds (13.35 pounds avoirdupois), and the export 173,510,307 pounds, leaving a net exportation of 169,293,206 pounds, an increase over that of the preceding year of about 7,400,000 pounds. Of the exports 168,300,000 pounds were sent to Great Britain, or over 10,000,000 pounds more than during the year 1900-1901. The average quotation for high-grade butter for the year was equivalent to 22.4 cents per pound avoirdupois.

A large wooden building at the Brighton (Mass.) slaughter, used as a slaughter-house and butter factory, was destroyed by fire April 20. A loss of \$150,000 was entailed, and four firemen and a number of other persons engaged in trying to save property were injured. The building was owned by the butchers slaughtering and melting association. The heaviest loss was the Learned Bird Oil Company, makers of oleo oils and butter, with an approximate damage of \$100,000. White Bros., butchers, lost \$25,000, and other occupants of the building \$5000. The loss to butting and melting was over \$200,000.

North Dakota advices indicate that wheat acreage will be considerably increased. The plant of the International Salt Company, located at South Chicago, with three boats lying in the Calumet river, were destroyed by fire April 27. The loss is estimated at \$1,200,000, that of the International Salt Company being placed at \$800,000. The buildings of the salt company plant covered nearly sixteen acres, extending along the Calumet river. In these buildings were stored 400,000 tons of salt, and the greater part of this said to have been ruined by fire and water. About 125 freight cars were consumed.

The German farmers who are to tour the country this summer are expected to reach Boston on May 29, and they plan to spend their first day on a trip to Arlington. They will visit the market garden of W. W. Rawson of the market gardeners association, and by Mr. Rawson will be taken about to other farm gardens in the neighborhood. On the following day the party will go to Belmont to look over the farm and stables of Thomas W. Lawson at Dreamwood. The only other part of the Boston programme which has been so far arranged is a trip through the park system.

The largest apple orchard in the world is said to be in the Oriskany Mountains. It has 200 acres planted in fruit trees. The same interests have purchased 6000 acres near Lebanon, Mo. They will plant every acre of it with fruit trees. When the apple trees are all bearing, which will be about six years from now, they expect to have the two largest orchards in the world.

A census of over 1000 graduates of the Massachusetts Agricultural College shows that one in three of them are now farmers.

Agricultural interests of South Deerfield, Mass., suffered indirectly in the fire of April 30, when the tobacco warehouse of Joseph Meyers' Sons of New York, with over five hundred cases of tobacco, the two storerooms of the Sunderland Union and Fertilizer Company, with the contents of 2000 tons of salt, and the greater part of the tobacco warehouse of Joseph Meyers' Sons of New York, were completely destroyed, the loss being over \$50,000. The tobacco on hand is said to be worth \$25,000, and the building may be worth \$15,000. Twenty-five men and employment sorters were on duty at the time of the fire. Insurance. Storehouses Nos. 1 and 2 of the Sunderland Union and Fertilizer Company, equipped with cold-storage facilities, cost \$15,000 to build. J. H. Preston of Providence, R. I., is the owner of the plant. The contents of fertilizer and fifty barrels of older were destroyed. The loss on the fertilizer was \$3000, and on the equipment \$2000. John McNery's loss is \$2500 on buildings and \$500 on furniture. The house of Elmer E. Fritzsche, a farmer, was destroyed, and was insured by perole efforts on the part of the citizens. The losses of over \$50,000 are fairly well covered by insurance. It is understood that the tobacco warehouse will not be rebuilt. Probably the storehouses will be replaced.

A study of export figures of domestic products shows that the loss of the tobacco warehouse of Joseph Meyers' Sons of New York, with over five hundred cases of tobacco, the two storerooms of the Sunderland Union and Fertilizer Company, with the contents of 2000 tons of salt, and the greater part of the tobacco warehouse of Joseph Meyers' Sons of New York, were completely destroyed, the loss being over \$50,000. The tobacco on hand is said to be worth \$25,000, and the building may be worth \$15,000. Twenty-five men and employment sorters were on duty at the time of the fire. Insurance. Storehouses Nos. 1 and 2 of the Sunderland Union and Fertilizer Company, equipped with cold-storage facilities, cost \$15,000 to build. J. H. Preston of Providence, R. I., is the owner of the plant. The contents of fertilizer and fifty barrels of older were destroyed. The loss on the fertilizer was \$3000, and on the equipment \$2000. John McNery's loss is \$2500 on buildings and \$500 on furniture. The house of Elmer E. Fritzsche, a farmer, was destroyed, and was insured by perole efforts on the part of the citizens. The losses of over \$50,000 are fairly well covered by insurance. It is understood that the tobacco warehouse will not be rebuilt. Probably the storehouses will be replaced.

Recent forest fires in the southern section of Rhode Island, near Washington, have caused a damage of between \$25,000 and \$30,000. The fire was started Wednesday by a match carelessly thrown into a pile of brush by a smoker.

One of the finest estates in the vicinity of Boston and one which is bound to be heard from considerably in the next few years is that being laid out by Larz Anderson in Brookline, Duncan Finlayson being the presiding horticultural spirit. Fine ranges of plant and fruit houses, a magnificent pit for bay trees, a walled-in kitchen garden and the finest Italian garden in the country are features on this estate, which is being developed in a masterly manner.

The quarantine has been lifted from Vermont and cattle may be shipped from that State except from the formerly infected towns of Ludlow, Cavendish, Weathersfield, Weston, Andover, Chester and Springfield, in the county of Windsor, and the townships of Londonderry, Windham, Gratton, Rockingham, Jamaica, Townsend and Athens, in the county of Windham, except after inspection by an inspector of the United States Bureau of Animal Industry and only when accompanied by a written permit issued by him. Dr. Marion Jones, an inspector of the Bureau of Animal Industry, will be stationed at Chester, Vt., to whom applications might be made for inspectors of animals and permits for the movement out of the townships mentioned.

According to the figures just issued by the bureau of statistics the agricultural production of

the United States has doubled since 1870, and the exportation of agricultural products has a little more than doubled.

Forest fires near Bradford, Pa., are reported to have destroyed \$1,000,000 worth of property, including injury to oil wells and buildings.

The early-planted corn was extensively killed by the freeze in the latter part of last week in Missouri, Kansas, Oklahoma and Texas, and the crop has suffered from cold weather throughout the Southern States. Preparations for planting have made favorable progress in the Ohio valley and Middle Atlantic States, but little progress has been made in the States of the upper Missouri valley and lake region. The present season to date has been very unfavorable for corn, planting being greatly delayed.

### GRAVES' MANGE CURE

For Dogs, Cats, Horses, Cattle and Sheep. All Skin Diseases they are subject to can be cured by this valuable remedy. Also

### GRAVES' MEDICATED SOAP

For Fleas and Lice for Dogs, Cats and Horses. Sure to kill them quick.

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Boston, Mass.

**Philander Williams,**  
Taunton, Mass.  
Originator and Breeder of the Celebrated Ant  
erat Strain of

### LIGHT BRAHMAS

Also Breeder of

### DARK BRAHMAS,

BUFF and WHITE COCHINS,

Buff and Silver Wyandottes, Buff and Black Cochins Bantams, Golden

Sebright Bantams and Yellow Fantail Pigeons.

### POULTRY KEEPING. HOW TO MAKE \$500 A YEAR KEEPING POULTRY.

A 45-Page Illustrated Book, Telling How to Do It, and All About Profitable Poultry Raising.

Containing Chapters on How to Make \$500 a year keeping poultry; Poultry Yards and Houses; Choice of Breeds; Care of Poultry; Setting the Hen and Incubation; Hatching and Care of Chicks; Feeding and Preparing Poultry for Market; Diseases of Poultry; Ducks, Geese and Turkeys; Caponizing; Receipts and Incubators; Use of Green Bone for Poultry, etc. Sent to any address on receipt of twenty-five cents. Stamps taken. Mention the PLOUGHMAN.

WALNUT COMPANY,  
Box 3334, Boston, Mass.

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# MASSACHUSETTS PLOUGHMAN

TELEPHONE NO. 3787 MAIN.

We notice with considerable interest that Mr. Jim Dams has just made his will.

"Why should we expect Chicago to be beautiful?" queries Mr. H. C. Chatfield-Taylor. We don't.

Daughters may come and daughters may go, but Capt. Devery's command of epigram is still a continuous performance.

Boothbay, Me., contributes the latest proof that the rural visitor is not always misrepresented in the comic weeklies.

Can't you just see the Pope sitting up at night and eagerly turning the pages of those ten volumes of presidential messages?

Cleaning Day in Rockland bids fair to become an annual celebration. There's nothing like doing things in a holiday spirit.

We notice that it was in New York State, not in Massachusetts, that a boy was recently accidentally killed by a gun loaded with dry beans.

The "Brief" recently published by the cheerful spirits of the law school in Cambridge might apparently have been briefer and nobody would have objected.

It's a blow to the small boy, anyway—this objection to allowing the circus to pitch the "big tent" in the abandoned railroad yard back of the old Park-square Station.

Mr. Thomas Wilson, who is drilling his large family of sons in anticipation of the President's coming visit to Utah, will be able to present sixteen letters of introduction.

Who will refuse to admit John Chinaman to Chicago in these sad days of idle tubs and irons? Race prejudice sinks to nothingness in comparison with a prejudice against soiled linen.

If the day of the nature myth were not past some centuries ago Bostonians would undoubtedly develop a pretty little story about the wind keeping steady company with a fair maid of the East.

Has the end of the rainbow ever been discovered resting on the bosom of Lake Champlain? Evidently there are those who think it ought to stop there occasionally, or there's no truth in the old theory of the hidden pot of gold.

Perhaps the most amusing remark of the past week was that made at the University of Michigan. "I would not be surprised," said a patent lawyer, lecturing on the possible discoveries of the twentieth century, "if the existence of God were proved."

No, the new White House livery does not consist of a Rough Rider uniform. Despite the excited reports from Washington, the new outfit is apparently no more striking than any other uniform similarly put together.

History seems to be repeating herself in the relation of King Edward's past to his present. Prince Hal, if our memory is not incorrect, gained one kind of popularity after he reached the throne by another kind of popularity during the Prince of Wales period.

We are glad to know that the Arapahoe-Cheyennes can spend their money as they please. They need not spend it wisely in all cases, but they are delivered from the anomalous condition of being granted an allowance, and not being permitted to use their own judgment in getting rid of it.

The freeze of last week caused a great deal of damage to the early-planted vegetables. Its effect upon the fruit prospect is yet to be seen, but there is always danger of fruit blight following a long spell of cold weather in May. Until recently, at least, the outlook was good, even the apple trees having bloomed quite freely for the off year.

Dairy interests have been so often disappointed in new milking machines, almost but not quite what was wanted, that too much reliance will not be placed on the latest Australian device which is reported to be a particular success. It is to be hoped that the claims made will be justified. A good milking machine would do more than any invention now in sight to lessen the drudgery of large farms and to make dairying practicable on a large scale.

Judging by the state of mind that appears to be growing in northern New England concerning "Old Home Week" as an established institution, it becomes evident that the fatted calf can be slaughtered too frequently for the general comfort. New Hampshire has about reached the conclusion that once in three years is quite often enough to welcome her prodigals, and Maine is suggesting that each family had best look after its own members without the help of general celebrations.

The Connecticut legislature is considering an appropriation of \$3000 for a survey of the resources of the State, including animal and plant life, building stone, clays, ores and minerals, to be described and located with maps and illustrations. This is very much as a farmer would do in looking over his property and sizing up its needs and possibilities. Before resources can be fully developed they must be fully known. Just such effort as is planned for Connecticut is needed in other States also as a completion of the excellent work being done by the Government bureau of soils in mapping out the crop possibilities of various sections.

The signs of recent events point to Government aid in road making. Prominent people are taking up the idea, and a strong attempt to start something definite in this line will be made during next session of Congress. The recent international good roads meeting at St. Louis succeeded in bringing out strong and influential support of the movement, President Roosevelt and General Miles having been on the list of speakers. There is a very general feeling that at least a fraction of the public money spent on rivers and harbors, canals and reservoirs might be reasonably diverted to encouraging the form of transportation which most directly concerns nine-tenths of the people.

The cattle epidemic, according to present appearances, has reached its last days. The Vermont quarantine has been raised, and that of Rhode Island is expected very

soon to follow suit. The only case of the disease found the past fortnight has been in a herd of seventeen cattle in Hancock, N. H. During a recent trip in and near the infected districts, it was noted that many of the farmers have posted "keep-out" signs on their barns; a wise precaution, in view of the ease with which the disease is carried from barn to barn. In some districts the feeling seems quite bitter against the arbitrary behavior of the Federal authorities in handling the epidemic. No doubt a more courteous and conciliatory tone on the part of some of the agents would make the severity of the requirements more easily endured, and likewise have secured some indulgence for the mistakes occasionally made. Already, however, the farmers are beginning to forget their irritation in the feeling of relief at the passing of the epidemic.

## A Modern Heretic.

It was Wadsworth, was it not, who first perceived that nature depletion to be at its best needs human beings in it. Since then the idea has become an integral part of art, with the result that nowadays our great pictures are "The Angelus," the "Man with the Hoe," and "Crossing the Brook," where the painter of one hundred years ago would have given us "Sunset," "Agriculture" and "The Mountain Stream." Similarly, it is now the soul rather than the record of facts in biography which makes not able work. So Dr. Rainsford tells us of his struggle with the question of infant baptism instead of the number of men and women he converted while ministering to a given parish. And this is one of the qualities which makes his life-story, now running in the Outlook, unique.

But there are others, and many of them. Where did this preacher catch the trick of the "chat" kind of writing? In the little editorial note that introduced the stirring chapters which hundreds of people now await eagerly from week to week, it was stated that the ensuing autobiography was really spoken, not written. And the editor gave us a delightful picture of the big-hearted preacher, pouring out to a sympathetic hearer, who knew how to lead him on and develop salient incidents, the whole fascinating story of his long and useful life. Often the reader is promised a treat of this kind by editors, but he seldom finds the bill up to the announcement of the advance agent. This time, however, the performance is as scheduled.

The charm of the thing cannot easily be put into words, but it has the effect of making every man, woman and child who pursues the story realize that such work as Dr. Rainsford has done at St. George's, in New York, is infinitely worth the doing, not because it represents the highest ideals and noblest efforts of a strong man laboring ever upward and onward towards the light. Naturally, therefore, the work is inspiring. "We needs must love the highest when we see it," and whether we are inside or out of Dr. Rainsford's church or shade of churchmanship, we respect him heartily as we read his story. There is one phrase which constantly recurs. "This time as in every other hard and piling place of my life I did my best. Earnestly I tried to see what was right, and then as pluckily as I could, but honestly always, I did what I saw." What better rule of life could any man have? To try to perceive the right thing to do, and then to do the thing in simple, straightforward fashion is manliness itself.

It is a curious commentary upon modern theology that while this unique "Story of a Preacher" is winning its way into the hearts of Americans all over our broad land, its central subject and author should be branded as a heretic by a portion of the church he adorns. In this contingency men of breadth may well paraphrase for the rector of St. George's, Patrick Henry's stirring words, "if this be heresy make the most of it."

## Royalty Abroad.

King Edward was always a good traveler, and has always appeared to be pleased and interested in what he saw and heard. If he was bored on any public occasion, as no doubt he often was, he made no outward manifestation of this discomfort, and preserved a serenity of bearing that made a happy impression. As long ago as 1890, when he was visiting this country as Baron Renfrew, and was the heir to the British throne, this amiability of disposition was exhibited, and he dined with all the mature women who were provided him as partners with the same apparent pleasure that he would have bestowed upon younger and more attractive women. It was a pleasant surprise to find that he was obliged to take part in his recent visits to Lisbon and Rome, at sixty and over, he was quite as good-natured as he was at nineteen, when the cares of state did not sit heavily on his shoulders, and seemed gratified and delighted with everything that was offered for his entertainment and instruction. He conducted himself with singular tact in the Eternal City, putting out of sight entirely his knowledge of the strained relations between the Italian government and the Pope, and he left with the good-will of both the royal family and the aged occupant of the Papal chair.

There never was a man occupying a similar high position who was less free from ostentation, affectation or pretense. He is not perfect, but many of the stories concerning his indulgence in free living in the past are probably untrue, or, at least, exaggerated, and though he has not been a model of all the domestic virtues like his father, the lamented Prince Albert, he has certainly won the affection and esteem of those with whom he has been closely associated. As Father Taylor said of a son-in-law, he may not have been a saint, but he was surely a very sweet sinner. He has not been treacherous to his friends as was George IV., who acted so long as Prince Regent, before he came to the throne late in life, as did King Edward. On the whole, the present King of Great Britain and Ireland is preserving his reputation abroad as a tolerant gentleman, as well as an intelligent observer of men and events. He is a diplomatist, of course, but the cynical undercurrent of pure worldliness that runs through the nature of many diplomats is conspicuous by its absence in King Edward VII., who is great as a conciliator if not brilliant as a statesman.

## Wisdom in Generosity.

No public benefactor has shown more good sense in the disposition of his gifts than Mr. Carnegie. There is a certain amount of business shrewdness in all that he does that is suggestive of his nationality, which stands for prudence even in the exercise of generosity. A man must be just as well as liberal, and not give for the mere gratification of an impulse to do something that will lead to self-satisfaction and the applause of men. Mr. Carnegie has given \$200,000 to the Tuskegee Institute. It is a royal present, but it is accompanied by a wise provision

which will insure an income for life to Mr. and Mrs. Booker T. Washington that will place them above want and insure them comfort in old age. Mr. Washington has devoted himself unselfishly to the interests of the institution of which he is the head, and today he is a poor man. Still, he must pursue his labors for the practical education of his colored brethren in the South, and procure money to carry on the work at Tuskegee, but he cannot, like the brook, go on forever, for the time cometh when no man can work. This Mr. Carnegie realizes, and has acted like a far seeing almoner.

## Beet Culture and Varieties.

A medium loamy soil is preferred for beets, but the vegetable can be grown under a great variety of conditions, light soil being good for the early crop, while a soil that is positively wet will give as good results as could be expected of any root crop.

The field or plot should be thoroughly firmed and plenty of manure worked into it. Sow early as convenient. Rows should be one foot apart and made straight and even with a marker. One of the wheel garden drills and markers is a great help, and nobody can really afford to be without one where any large amount of produce is to be grown in drills. The sowing is done quickly and evenly at a considerable saving of seed, and the straight, even rows are easily kept clean with the wheel-hoe attachment. Some gardeners make the rows two feet apart and sow radishes or some other quick crop between, but the practice is not worth while except where land is costly and labor plenty.

The illustration shows half a dozen of the favorite varieties as grown at the New Hampshire Experiment Station. Eclipse is a favorite kind; early, round, dark red, good quality. The Egyptian is an older kind, flatter in shape and very dark red, with small top. It is quite popular for the early crop. Arlington Favorite is well known in the Boston district. It is a little later than the preceding kinds and lasts in season longer. Dewing's blood turnip is an old favorite of the Boston market gardeners as a main crop beet, and the best strains of the seed are still in good demand. A variety for a different type which is increasing in popularity, especially in the West, is the Detroit Half Long. It produces a heavier crop than any of the kinds illustrated, and is therefore desirable for main crop or winter use, the surplus making a good cattle food.

After the seed is up, or even before, cultivation should begin, breaking up the crust as often as formed and killing weeds. Thin the plants to five or six inches apart, fill the long gaps by transplanting, and use the surplus thinnings for greens. Weeding should be done each time a little before it seems to be badly needed. Delay either in hoeing or weeding makes the total amount of work greater and injures the crop. The early crop should partly be ready for market in three months from seed. Later sowings vary with the season. Sowings about June 1 will give roots of best quality for table use in winter.

## Uncle Sam Should Help.

Better to fight the gypsy moth at intervals than not to fight at all. But during the intermission of several years the pest has been gaining rapid headway in Massachusetts, and complete extermination may now be impracticable.

The State has been unfairly treated in being compelled to deal unaided with a pest which threatens the whole country, and taxpayers can hardly be blamed for growing tired of an expense which only the national treasury would be able to meet without strain. Had the insect invaded several States at once, the Government would have been likely to assist in the struggle.

It is unfortunate that the law which permits the use of national funds in the suppression of cattle epidemics do not in like manner provide for suppression of new insect pests. In that event, prompt action and almost unlimited resources would very likely have exterminated the moth during the early years of its invasion. As it is, the gypsy and brown-tail moths have obtained considerable headway, and it appears unlikely that the State unaided can do more than check their progress for a few years.

After that the American farmers must fight the pest forever after at an expense of dollars where cents spent in season would have done the work.

## The St. Louis Celebration.

The dedication of the buildings of the Louisiana Purchase Exposition last week at St. Louis furnished the occasion for the delivery of two patriotic addresses by men who have distinguished themselves in the office that is the highest in the gift of the Republic of the United States. The speech of President Roosevelt was eminently appropriate for the time and the place, and the contrast presented of our governmental genius with that of both Greece and Rome was scholarly and suggestive, especially when it alluded to the fact that a State that came into the Union only yesterday was on a footing of complete equality with the States whose sons signed the Declaration of Independence. This, Mr. Roosevelt rightly claimed, was entirely modern and purely American in its origin. The

Greek colony, on the contrary, became entirely independent of the mother State, while Rome only conquered to subjugate and to kill local self-government. Both these systems led eventually to the destruction of prosperous empires that had given much to the world in literature, philosophy, art and law. Our process, so distinctly opposite, points to perpetuity, and, perhaps, though the speaker did not say so, to the federation of the world.

Mr. Cleveland's remarks were more directly historical than those of Mr. Roosevelt, but he made a strong point when he asserted that our prosperity and progress were due to a Higher Power than man, and that from our beginning as a people our course had been marked by a concurrence of incidents so striking, so significant and so constant, that only superstitious dullness or intellectual blindness would place them to the credit of luck or chance. Both assertions are worthy of especial remembrance, because they emphasized the fact that expansion was as much condemned in the days of Jefferson and the Louisiana purchase as it is in our own times by those who cannot look into the future "far as human eyes can scan."

## Concealed Weapons.

If there is a law prohibiting the carrying of concealed weapons, why is it not more rigidly enforced? If a man has a pocket pistol in his pocket, he is tempted to use it on the slightest provocation, and in the height of passion is liable to become a murderer almost before he realizes to what a deplorable extent his anger has driven him in the direction of sacrificing human life.

The person who goes about unarmed is seldom, comparatively speaking, molested if he keeps in fairly decent company. It is usually the fellow that has deadly weapons about him who becomes the victim of a bullet or the sufferer from a thrust of a stiletto. Those who come here from foreign lands, where a resort to the knife is a common way of settling disputes, bring with them this method of overcoming a foe, and the result is that scarcely a day passes without the record of a fight in which some one of these strangers in our land of liberty is hurried to death by some sharp instrument. Small fire-arms, too, often play a prominent part in forcing people out of existence among these unenlightened foreigners, who seldom use their fists as a means of offence or defense.

Not all the murders, to be sure, can be laid at the doors of these immigrants, but the majority of homicides committed in hot blood here may be attributed to newcomers to our shores from southern Europe. The more cool and calculating assassins are to be found among all nationalities, and do not multiply so rapidly as do those who lay on the impulse of the moment. If the latter could be prevented from carrying on the dagger, the pistol or even the razor, we are sure we should hear of fewer brutal culminations in the shedding of blood.

## The Peace-Makers.

The Emperor William's visit to Rome so soon after his uncle, King Edward, seems to indicate that there is a better feeling among the European nations than existed in past times. Both rulers were royally received in the Eternal City, though the Kaiser made more display than did the monarch of Great Britain and Ireland and the Emperor of India. The younger potentate is naturally fonder of show than the older one, and put himself forward with a strenuousness that seemed to indicate that he did not intend to hide his light under a bushel. There was, of course, some policy in the proceedings of both these visitors. Each had his axe to grind, as we say in this country, but as human motives are always a little mixed, we may charitably consider that their efforts to please the people who entertained them were not unaccompanied by feelings of genuine good-will to the Italians and to their authorities in state and church.

The enmities which once existed between civilized nations appear to be passing away, and King, Kaiser, Czar and President are doing much to promote and preserve peace. The ages when states, separated by a narrow strait, abhorred each other, have departed, if we can place any confidence in the recent enthusiastic reception of King Edward in Paris, when the son of a peasant and the son of a royal line, which connects him with those European sovereigns, past and present, stood side by side and received the acclamations of the people of a republic that has survived long enough to warrant a belief in its continuance. The French, to be sure, dearly love a pageant, and are given to almost childlike demonstrations of delight when they are pleased with an unusual public exhibition, but their welcome of the successor of Victoria, a queen who, perhaps, they do not remember kindly on account of her hospitality to their called Emperor and Empress, was sufficiently hearty to indicate sincerity, though, as Burns says, mankind is unweakened and little to be trusted.

Blessed are the peace-makers, and it is to be hoped that those who sway the sceptre and endure a purple robe in England, Germany and Russia are entitled to this benediction, though the Czar's government has been acting strangely, in spite of all denials, towards America of late, and apparently wants to keep Manchuria as a sweet

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morsel for the delectation of the Russian bear. It need not shut the door to our trade in order to secure harbors all the year round for its Asiatic possessions. Why does not Russia buy Manchuria, if that be possible, and obtain the province legitimately, as we did the Philippines? That would prevent war, bitter controversy, and show that Russia still preserved the friendship for the United States that she manifested so strongly during the civil war by giving us the "open door" without question or reservation. She would thus be a peace-maker in more ways than one, and prevent Japan from looking to us for support.

No, the "servant-girl problem" is apparently no nearer a solution than it was before Mr. Farson's \$1,000,000 offer. Even Mrs. Farson's own statement that she always arranges the work between her four maids in such fashion that they can have every afternoon to themselves, is of little practical assistance to the woman with one hired help.

If this lawsuit in Portland, Me., wherein the plaintiff declares that the defendant did shake hands with him, not so much in friendship as in exhibiting muscular development—leads to yet other suits directed against the individual who slaps people on the back, the movement is in the right direction. But perhaps the defendant was merely an unconscious example of a course in physical culture.

Professor Caldwell, we venture to predict, will be sorry he told his class at the Northwestern University that he knows "many men who drank whiskey before meals who are the best types of Americans. They are moderate drinkers, but they have solved the philosophy of life." Already we seem to hear a rustling of skirts and the foreboding sound of pens dipping thirstily into ink wells.

Quite recently the United States Government made a contract with a dealer in Oregon, for one hundred ordinary cavalry horses, at \$117 per head. Only six years ago the same kind of horses were killed for their hides, soap, grease and sausage.

Now the happy season cometh  
When we do not care a pin  
If the ice is in the ice-chest  
Or the coal is in the bin. —Puck.

## Governors and the Grange.

The fifteenth anniversary of Wellesley Grange, which occurred April 23, and was recognized by its third annual banquet, was attended by a large proportion of the State Grange officers and representatives from the various subordinate Granges in the vicinity. Among the guests who honored the occasion by their presence were Governor Bates of Massachusetts and Governor Batchelder of New Hampshire. Mrs. S. Ella Southland, lady assistant steward of the State Grange, in responding to the toast, "Our Governors," gave one of the most brilliant speeches of the evening, which undoubtedly will be interesting to every Grange member among our readers, and by request of subscribers is printed nearly complete: "It is with pleasure I respond to the toast, 'Our Governors.' The meaning of the word 'governor,' one who rules. I presume there have been times in the lives of these distinguished men, Governor Bates of Massachusetts and Governor Batchelder of New Hampshire, when their right to rule has been tossed aside as lightly as a feather, and they have been gently and firmly reminded that in home rule there were others of equal importance and equal determination. But if by years of experience have gained wisdom, 'to know how to be silent is more difficult and more profitable than to know how to speak.' The famous men of history who have possessed energy and decision were also silent men. When things went wrong, they did not air their grievances in public. They simply changed their tactics. They did not relinquish their purposes. They knew what they wished to do, and they kept at it until they were successful. And I do not doubt but what that has been the method employed by 'our governors' in regard to home rule.

"There is in the world a Paradise  
That no man enters alone,  
For only the light of a good wife's eyes  
Can make the pathway known.  
A sudden gleam, then a tender glow,  
Behold! he has seen the way.  
But the two who came through Paradise  
Hold in their souls its charm;  
Its perfume clings to their garments still,  
And their hearts are soft and warm,  
And as long as they journey hand in hand  
They find neither hill nor stone,  
So steep, or so sharp, as those they trod  
While yet each toiled alone.

"It seems that the woman who is continually shouting for equal rights proves to all interested parties that for what God had intended her to be she had proved a failure, else, why her complaints? For there is no influence on earth equal to that of the good wife and mother. No better proof of my statement need be presented to you here tonight than the lives of 'our two governors,' who would not have associated to a row of pins if it had not been for the home rule of mother and wife. I am sure they were too busily occupied in making good men of our district, guided guests to find time to cry for the ballot-box, and they were so successful that the people of the State of New Hampshire and Massachusetts were only too glad to bestow upon them the highest position in the State that they were able to give.

"The other day I read an editorial in a Boston daily paper, as follows: 'We think we are a great nation, and we are. We keep an army of sixty-five thousand men. We have 254 ships of war and more money than any nation ever possessed before. We put a ship on our shoulder

and invite the whole world to knock it off. There is no nation in the world big enough to cross our path. And yet, with all our power and all our money, the little potato bug defies us. The heaviest fly laughs us to scorn. The grasshopper jumps nimbly out of our way, and the grasshopper lays its eggs and prosecutes its domestic industries as though it belonged to the soil. A small company of mice can put a whole drove of elephants to flight, simply because they are little.' And so it is with the little influences of home, little thoughtful acts of kindness and love that the wife and mother gave to the husband and boy that made these men, 'our governors,' exert themselves to please, exert themselves to become a power, each in their own State. The only thing that troubles me is that I did not have that brilliant thought at the commencement of my married life twenty years ago, and so have practiced what I am preaching here tonight. And by little deeds of kindness, little words of love, made of my husband a governor, too."

"If Massachusetts should need another eulogy, one different from that pronounced by Daniel Webster, but almost as eloquent, might be found in the fact that there are 1,500,000 depositors in her savings banks. There is not in the world an equal area that can show such proof of general prosperity. Governor Bates must feel proud of his State! But Governor Batchelder has as proud a record as that. For twelve or fourteen years he has been master of the State Grange of New Hampshire. The strings that pulled him into the governor's chair were not political strings, but strings of love from loyal-hearted men of the State who knew his worth as a man. It was my pleasure to attend the last annual session of the State Grange of New Hampshire, and while there Governor Jordan was introduced to the assembled patrons of husbandry, not as a governor of his State, but as Brother Jordan. A proud record, a governor and an ex-governor, members of our order in the State of New Hampshire.

"Ex-Governor Brackett is reported to have prophesied the other day that there will not be a New England President in the next fifty years. What really sound reason is there for this feeling? There have been only three New England Presidents and three Vice-Presidents, but if vigorous action were taken and persisted in for the common good of us all by hundreds, aye, thousands, of loyal patriots, this record could be changed in a short time. I should advise Governor Bates of Massachusetts to become a patron of husbandry if he has presidential aspirations; for as things are now, Governor Batchelder of New Hampshire certainly stands a better chance of winning out. For he is a member of an order which sings, 'Keep politics off from the farm,' and yet every year is making its influence felt more and more throughout the United States by its pure-minded and its teachings, educating a great mass of people to demand only the election of such men to public offices who are loyal, honest and true, like 'our governors.'"

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Procure 32 skeins of Shetland wool, 10 yards satin ribbon, No. 3, for the yoke, 3 yards satin ribbon, No. 40, for ties, and a lining of China silk.

For the neck, chain 84 stitches, 1 treble in fifth stitch of chain, chain 1, 1 treble in ninth chain, and so on till end of chain is reached.

3d row—Chain 5, 1 treble in treble, chain 1, 1 treble in next treble, finish the row. 3d, 4th and 5th rows—Like second.

For the yoke, chain 5, 1 treble in treble of preceding row, chain 1, 1 treble in same treble, chain 1, 1 treble in next treble, so on till 12th treble is reached, (1) chain 1, 1 treble in next treble, chain 1, 1 treble in next treble, repeat from (1) to end of row.

2d, 3d, 4th, 5th, 6th, 7th, 8th same as preceding row; always widen at the widening.

9th row—One double in every stitch. Cape part—Chain 5, treble in first double, chain 1, 2 treble in same double, 2 treble in third double, chain 1, 2 treble in same double, 2 treble in fifth double, chain 1, 2 treble in same double, finish the row. Work 9 rows like this.

10th row—Chain 5, 3 treble in chain 1, 3 treble in same 3 treble in next chain, chain 1, 3 treble in same, finish the row. Work 29 rows like this.

Ruffle for Bottom—Chain 5, 3 treble in chain, chain 1, 3 treble in same, 3 treble between shells in preceding row, chain 1, 3 treble in same place, 3 treble in next chain, chain 1, 3 treble in same. Work six rows.

7th row—Twelve treble in each shell. Finish neck with roses, 30 treble in each rosette. Finish all edges of wrap with a chain of 7.

EVA M. NILES.

## A Cure for Sleeplessness.

I venture to send you, says a correspondent of the London Spectator, a remedy for sleeplessness, which during thirty years I have found almost infallible in inducing a pleasant, healthy slumber. I get up, put on a few loose garments, and go through slow swinging movements of my arms and body until, in from five to twenty minutes, I feel drowsy and tired. I make about ten movements of each kind, and do not always have to repeat them. If my sleeplessness arises from overfatigue, I lie awake until my body is rested before going through the motions. My idea is that sleeplessness is caused immediately by congestion of blood around the brain, and I therefore prefer motions which are swinging and centrifugal.

## Making of a Summer Girl.

A girl might as well be out of the world as out of shape. The shapeless, flat-chested young woman cannot hope to be a typical summer girl, for the girl of summer is full in the chest round in the neck and full bustled. The girl who is flat, who has no curves, who resembles in no way the models of the art studios, may be a nice girl, but she is not attractive outwardly.

A few years ago the thin-chested girl might have passed muster as being in good health and standing well in the community. But now even her dressmaker dislikes her. As for her friends, they think her consumptive, and her acquaintances regard her as lacking in style.

It is in vain that the flat-chested girl pads. No amount of padding will make her look round. There is a sloping in, a queer flatness, a tendency to hollowness, that cannot be disguised, no matter how industriously the sawdust be packed or how skillfully it be disposed.

There is only one thing for the flat-chested girl to do, and that is to develop herself. She must take a course of exercises which will pump her out and make her full across the chest.

The full-busted women say that their pretty figures are due not to much to bust development as to the development of the chest. As soon as the shoulders are thrown back and the military carriage is adopted the girl becomes pretty of figure.

But let a thin girl, who is flat in the chest, try to stand with her shoulders squared and the effect is pitiful. She does not look any fuller in the bust than she did before, while the angularities of shoulders and neck become painfully apparent.

To get a full chest, then, requires practice and time; and not only practice and time, but a certain amount of patience and application. More than all these, it needs a little knowledge, for the girl who goes at it headlong will come to grief. She will tire herself and grow thinner and flatter, instead of rounding out as she desires.

Deep breathing is one of the secrets of a full chest. It is said that the heroines of the popular artists, the Gibson girls, the Christy girls, and the airy, fairy girls of the pretty sketchy prints, are all followers of the deep-breath method. It is said, moreover, that they must practice it every day and that they are trained to long inspirations, for in no other way could the chest stand out so roundly and the bust be so full and pretty.—N. Y. Sun.

## Tutti Frutti Ice-Cream.

This ice-cream demands the preparation of two different kinds of ice-cream and one water ice, which are packed together in one mould. Prepare a pint of vanilla, half a pint of strawberry and half a pint of lemon water ice. In order to do this it will be necessary to have two freezers, one for a gallon and one for half a gallon.

To prepare the vanilla bring a pint of milk with half a genuine vanilla bean to the boiling point, or use a teaspoonful of extract of vanilla. Add a cup of sugar beaten with four egg yolks to the milk which has been flavored with the vanilla. Stir the custard for two minutes over the stove. Add a pint of rich cream which has been heated to the boiling point and let the mixture cook for thirty minutes. Then turn the mixture into the gallon freezer and freeze to the proper consistency.

Prepare half the quantity of strawberry ice-cream in exactly the same way as the vanilla, adding, before it is turned into the freezer, half a pint of strawberries, carefully hulled and cleaned, with sugar enough to sweeten the mixture thoroughly. Have

the half-gallon freezer ready, packed with ice and salt, and strain the mixture for strawberry ice-cream into the freezing-can after cooking the strawberries for two or three minutes and pressing them with a wooden spoon. Freeze the strawberry ice-cream in the half-gallon freezer and pack it away.

Then remove the pint of vanilla ice-cream to a plain mould packed in a pall of ice. Make a liberal half-pint of lemon water ice and pack it in the gallon freezer. To make it, put one pint of cold water with half a pound of granulated sugar, the grated rind of one large or two small lemons and the juice of three good-sized ones or four small ones. Cook this lemonade thoroughly for about five minutes and freeze it in the gallon freezer until it is of a proper consistency. Pack the water ice, which is in the freezer, in a pall of cracked ice, and repeat the gallon freezer again with cracked ice, putting in the can six little tutti frutti moulds.

Meantime prepare a quart of a pound of candied cherries cut in two and two ounces of candied apricots cut in small pieces. Soak this candied fruit in two tablespoonfuls of maraschino for at least six hours before it is used. Use that it is closely covered, so that the liquor will be thoroughly absorbed by the fruit, otherwise the fruit will become dry when it is packed in the ice-cream. Take one of the six tutti frutti moulds which have been chilled and pack it in the following manner: Put a tablespoonful of strawberry ice-cream in the bottom of the mould, with a tablespoonful of water ice beside it, then add one-sixth of the candied fruit and one-sixth of the vanilla ice-cream.

Seal the mould tightly and pack it at the bottom of a pall of ice and salt. Pack the other five moulds with it in the pall in exactly the same way, sealing them so that no water from the ice and salt can penetrate. This can be done by putting them in a freezing-can packed in ice and salt, or putting the individual moulds in ice and salt after they have been sealed with tallow. With a small half-gallon freezer and one ordinary gallon freezer it is easy to make the three kinds of ice given in this rule. For ordinary family use a gallon freezer is the best size to buy.

It is necessary in purchasing an ice-cream freezer to buy one made of the best materials. There are many freezers of poor tin in the market which are such inferior conductors of cold that it may take hours to freeze cream in them. A first-class gallon freezer properly packed with three pints of salt and a large pall of cracked ice will freeze two or three quarts of ice-cream in from ten to fifteen minutes at the longest. If the work is not accomplished in this amount of time one may be certain that the freezing-can is made of inferior material. If the work is done much quicker the cream will be coarse in texture and quality. Avoid, also, freezers having much mechanism, which is often only an attempt to hide the inferior quality of the materials used. A satisfactory ice-cream freezer cannot be made at a very low price. Avoid those freezers which recommend salt and ice in larger quantities than those given in this article—three pints of coarse salt and ten quarts of fine cracked ice or snow wet with water and packed in closely. The water should never be drained off the ice after the freezer is packed.—Exchange.

## The Ounce of Prevention.

People who are about going into the country should remember that impure drinking water is one of the chief causes of typhoid fever. In many places that take summer boarders the drainage is often outrageously defective, and the wells are thereby impregnated with poisonous matter. Nor are all the cottages with their grounds that are leased for the warm season wholly free from imperfect sewerage, and care should be exercised in hiring them.

Too frequently people who go into the country or to the seashore for the promotion of their health return to their city homes victims of disease, owing to the drinking of unfiltered water that is hardly fit for washing purposes. The New York Sun calls attention to the fact that in a private military school not long since, there was an epidemic of typhoid fever among the pupils, during which several died, and this outbreak was due to the water supply of the institution, which came from a well into which an imperfect sewer discharged a part of its contents.

Prof. A. M. Seibert of the New York Polytechnic Medical School, in referring to fatalities resulting from typhoid fever, says that in Hamburg and Berlin a decade before filter plants were introduced, one in every 2000 inhabitants died, but that the death rate sank to one in eleven thousand for the six years after filtered water came into use.

Among the cities in our own country, Philadelphia, Baltimore, Chicago and St. Louis are exceptionally unhappy in having their water supply from sources in which there is much pollution, and this unfortunate condition is partially offset by filtration, though those best fitted to give an opinion say that typhoid infection can be only entirely overcome by boiling the water, and thus destroying disease and death-bearing germs.

Those who are preparing for their summer absence from town should bear this last decision in mind and act accordingly, for it is a simple matter to heat water to the proper temperature for destroying dangerous organisms, and put it away in a covered vessel in the refrigerator. Of course there are plenty of places where the purity of the water cannot be seriously questioned, but nevertheless, as an ounce of prevention is worth a pound of cure, the possibility of getting dangerous germs into hot water should not be neglected.

## Spring Vegetables.

The value of the first green herbs to the health cannot be exaggerated. More useful than the green lettuce of the garden and any cultivated spinach of the field are the wild dandelions and cowslips of the meadow and swamp. In the country the dandelion is so common a plant that it is naturally despised. In England, where it is comparatively uncommon and the wild chiboly is substituted for it in the herb shops, the dandelion is properly esteemed and is used in getting dandelion as a pot herb and a salad plant. Wild dandelion leaves are recognized as a more wholesome pot herb than anything else.

Pick the tender green leaves early in the spring, before the flower buds have formed. Cut a very small portion of the root with the leaves, in order to give the plant something of its wholesome tonic bitterness. Wash the plants carefully, throwing them into an abundance of salted water. Let them simmer for fifteen minutes, instead of an hour, as old housewives used to cook their greens. As soon as they have cooked drain them into a colander and dash cold water from a faucet over them. This chills and blanches them, and gives the leaves a fresh, tender flavor. Chop them fine and let them rest

until ready to serve. Then warm them up in a frying pan with a little butter, salt and pepper, adding two or three hard boiled eggs over them.

Marsh marigolds, or cowslips, should be picked for greens before the flowers blossom, and cooked exactly the same way as dandelions. The leaves ordinarily are not mature enough for use until the last week in April, when the flower buds begin to show color, but are not yet large enough to blossom. This plant, which is supposed to be identical with the "winking Mary-buds" of "Cymbeline," is no relative of the cowslip, which belongs to another family of plants. It is not a genuine marigold or calendula, though like the calendula, it bears golden blossoms. The buds of the marsh marigold are palatable, but the leaves become too rank for food when the buds develop into flowers.—N. Y. Tribune.

## Medical Uses of the Röntgen Rays.

Although it is now several years since Röntgen made his wonderful discovery of the X-rays, and although the probable value of these rays in medicine was early appreciated, the extent of their usefulness as a means for the cure of disease is still far from being definitely established.

The first use of these penetrating rays was in the way of diagnosis, and especially of the diagnosis of fractures and other injuries and diseases of the bones; and as the users of the method became more expert they found that abnormal conditions of other parts and organs could also be detected by this revealer of hidden things.

Soon it was found that the rays did not simply pass through the body as rays of light pass through a thin sheet of paper; they bombarded the body with millions of infinitesimal waves, which, unless great care were taken, would excite serious inflammation of the skin. This directed attention to the possible curative action of the rays, for if they could act so powerfully on the sound skin, they might also effect changes in diseased structures.

The experiment was made by exposing lupus, a form of tuberculosis of the skin, to the Röntgen rays, and it was found that this affection, hitherto resistant to almost every kind of treatment, in many cases yielded to the action of the rays, like snow under the sun. The rays were then tried on cancer of the skin, and the joyful discovery was made that this terrible disease could also sometimes be subdued by the wonderful newly discovered force.

But success is not invariably, and why a cancer should in one case be removed by the action of the X-rays, when an apparently exactly similar tumor proves refractory in another case, is a mystery. An even more puzzling fact is that the action of the rays on previously healthy skin has been known to excite a cancerous growth. It is impossible to predict yet what may be the future outcome, both for good and harm, of this wonderful discovery, but there is every reason to hope that with further understanding and proper control, it may prove of inestimable benefit to the race.—Youth's Companion.

## Domestic Hints.

## REAL CROQUETTES.

Delicious real croquettes may be made of a cup of cold minced meat. Meat that has served for a soup stock will do very well for this purpose. Add a cup of rice cooked until tender, half a cup of cooked sweetbreads minced and chopped fine. Add for seasoning three or four drops of onion juice, a sprig of minced parsley, a sprig of cold minced and chopped thyme. Moisten the mixture with three-quarters of a cup of white stock which has previously been jellied and then melted before it is added. Add salt and pepper to taste. Shape the croquettes between each one while it is over the fire. Add salt and pepper and let the mixture cook for three or four minutes, then turn it out on a platter to become cold. When cold form into croquettes. Roll lightly in breadcrumbs, then mask with beaten egg yolk and a little milk, roll in breadcrumbs again and fry in smoking hot fat until a golden brown.

## LIVER AND RACON.

Bacon and calves' liver is a common dish, but especially attractive to men who enjoy rich food. Calves' liver is much more delicate than beef or even lamb. Slice it thin and lay it in cold water for ten minutes. Then draw out the blood and make the liver better food. Fry a dozen pieces of bacon cut in waterlike slices to every quarter of a pound of calves' liver. Let the bacon be cold and crisp it quickly on a very hot fire. Then add the liver and cook for ten minutes. The liver should be browned on both sides. Dish it with butter, or cuttings in the mountains, for the beach, yachting and steamer wear. The new designs include basket and corded patterns, armured and creped weaves of the finest texture, in various combinations of colors and dots and green effects in leather or briar-stitching.

## CHICKEN PANCAKES.

Cut the breast of a cold cooked chicken into dice-shaped bits, mince some skinned and blanched mushrooms, add these with a tablespoonful of heavy cream, a pinch of salt, and a little chopped parsley. Let these simmer in just enough good stock to keep them moist and free from burning. Make a thick light pancake, spread some of the mixture over it, put another pancake on top, and cook for ten minutes, and send to the table at once while hot and fresh.

## DANISH PUDDING.

Put into a bowl the yolks of seven eggs, five ounces of sugar and a gill of cream; whisk this for ten minutes over a very slow fire, not allowing the mixture to get too hot. Then add a little less than a pound of pulverized gelatine dissolved in two tablespoonfuls of water. Add the whites of the eggs stiffly whipped, the juice of one large or two small lemons, pour into a deep dish and freeze for two hours or longer. When unmoulded for serving surround with a border of whipped cream which has been tinted a light green with some vegetable coloring.—The Epicure.

## FISH ROE (CHAFING-DISH).

Put two tablespoonfuls of butter in the chafing-dish, with a tablespoonful of vinegar or lemon juice. Add a shad roe (which has been previously boiled about ten minutes in salted water). Break up lightly with a fork, add the yolks of two hard-boiled eggs, mashed fine, a small cup of grated breadcrumbs, a little chopped parsley, pepper and salt. Stir constantly until all is well mixed, and serve very hot.

## CREAM OF CALIFLOWERS.

Cut one small cauliflower into flowerettes, reserve a tablespoonful, put the rest into a saucepan with three cups of boiling water, one small white onion, half a small celery root in slices and a bay leaf. Cook together ten minutes, drain and put the vegetables into a double boiler with two heaping tablespoonfuls of butter, a heaping tablespoonful of flour, salt and pepper to taste; steam for ten minutes. Put the flowerettes into the water the vegetables were boiled in and cook until tender, remove and put in a keep warm, measure the water and add sufficient from the kettle to make two cupsful, pour this over the vegetables, cook until tender and press through a fine sieve. Bring two cups of milk to the boiling point, turn the puree into it, let it boil up once, remove from the fire. Beat two egg yolks and four tablespoonfuls of rich cream together, add some of the soup to this, then mix all together, turn into theureen, add the flowerettes and serve at once.

## Hints to Housekeepers.

An old-fashioned New England dish is made by boiling green peas and new potatoes together. Boil the peas for twenty minutes, then add the potatoes, which should be small; put in a teaspoonful of salt, and let them simmer for five minutes. Pour off the water, add a teaspoonful of butter, a cupful of cream or rich milk, heat through and serve.

Grilled tomatoes require large, firm fruit. Wipe the tomatoes and split them through the center. Lay them on a plate and cover with a cloth and cook over a clear fire until tender. Turn on the other side and brown lightly. Put a generous lump of butter on each, season with salt and pepper and set in the oven a few minutes before serving.

In making a cheese omelet try mixing the omelet with a half a cupful of rice, and cook before the heat is broken. The lightness of the omelet will not be interfered with, while the flavor will be greatly improved.

To ecclatop tomatoes, season a quart canful with salt, sugar and onion juice. Have ready two large sheets of white muslin, and spread a light state lot for inside layers and those dried and sifted for the top. Sprinkle a lump, broad baking dish with crumbs. Add dots of butter, then spread a layer of tomatoes with the hard bits removed. There should be three layers. Cover the dish in a hot oven. When heated through and partly cooked remove the cover. When the top is nicely browned the dish is ready to serve. Tomatoes cooked in this way are never watery.

To prepare tomatoes a l'italienne use half a can of tomatoes, half a cupful of cayenne pepper and one small onion shredded or a bit of chopped garlic. Stew all the ingredients for two hours. Serve as a vegetable.

The faded embroidered gowns brings many pretty fashions to the fore. The new style has an artistic ease and is clever with her needle can beautify her cotton gowns in any number of effective ways. Here, for instance, is a suggestion for a wash ecclatop that is simple, and yet has a wonderfully pretty effect: Make a shirt-waist ecclatop of white linen, having a plain pink-cut five petalled flowers of the latter and heart-shaped leaves of the former; then, apart from the dress, buttonhole stitch the edges with coarse wash silk. This will make a substantial ecclatop which may then be sewed on the material in the way suggested; connecting stem and tendrils can be put in a running stitch afterward with the green embroidery silk.

With the approach of sultry weather a dish in which the family pet may be sure to find fresh cheer at all times is a most desirable one. A material in the way suggested; connecting stem and tendrils can be put in a running stitch afterward with the green embroidery silk.

Lavender is a color which has been used very little in household decoration. It is a trying color to most completions, and it is rather too positive in its suggestion. Recently, however, some beautiful chintzes and tapestries have appeared in lilac and lavender tones, and the shops are even offering bedroom sets stained or enameled in the same hues. An artistic bed comes from an English house, the straight simple lines stained a rich, deep lavender. The wood is rubbed down to a fine wax finish, and the only decorations are small inserts of dull gold and brown in the central panels of the head and footboards. The rich covering of the spring and summer and gold brocade, edged with a narrow gilt galloon.

## Fashion Notes.

Chamois silk in pale shades of sea-green, rose color and ciel blue, shading into a shimmering tint of silver gray, are extensively used by French dressmakers for foundation slips beneath sheer mousselines and batistes, inset with lace appliques of elaborate designs.

Serviceable dresses for young girls are made of shepherd's check wool trimmed with red bands of the goods piped with red silk, with red collar and girde with wash ends.

There is a variety of washable gloves this season. The washable gloves cost \$2 a pair, but white and yellow chamois silk gloves can be purchased for less than half that price, also the finer castor makes that can be cleaned, but not with soap and water. Then there are the neat and durable fabric gloves, so much liked by the house and shopping, and the washable silk and lace varieties that fit almost like a kid glove and wash like a cotton one.

One of the new skirt models in white linen has the pointed yoke top made of all-over Irish embroidery. Below this yoke are graduated box pleats, and the lower edge of the skirt is finished with a narrow edge of Irish guipure. The open sleeves of this jacket are of the same, showing the fine, drooping sleeves of the net blouse below.

Primrose, maize and soft canary are three tints of yellow that are being widely used on gowns for the summer. The delicate maize color is particularly attractive in crepe de chine, with a skirt set into a big yoke of eury lace, and finished at the hem with three rather wide bias folds arranged like tufts. The yoke and sleeve puffs of the bodice are of eury lace, and the lower half is laid in box plaits. Bias folds of the crepe de chine frame the edges of the yoke front and back.

There is an unusual variety among waists of wash flannel this season, the display including Saxony, Scotch, Irish and American weaves. These waists are indispensable for the cool days of summer, for cuttings in the mountains, for the beach, yachting and steamer wear. The new designs include basket and corded patterns, armured and creped weaves of the finest texture, in various combinations of colors and dots and green effects in leather or briar-stitching.

White linen bands, narrowly piped with color, look well on some of the simple French gowns made of Irish dimity, dotted pique, chambray, or pink and white, or mauve and white shepherd's check French dimity.

A single trailing rose of the France roses about the neck, with a plentiful background of tender green foliage, is a favorite decoration for hats of light-weight fancy straw. The broad end of the spray is set upon the edge of the low crown at the left side, and gradually diminishing in width, it crosses the crown to the extreme edge of the brim on the right side. Another attractive style, becoming to many youthful faces, is the medium-wide plateau hat. This is trimmed outside with a large alaskan bow of rather broad ribbon of broad moss-green velvet. The brim on the under side is wholly covered with fragile-looking shaded rose petals, softly lapping each other from the extreme edge of the brim to the crown.

Fabric-made gown of pale pink linen has a fitted jacket with stole ends finished with embroidery. The blouse beneath this open-fronted garment is of soft eury batiste laid in fine lingerie tufts that alternate with bands of the batiste embroidery in French colors. The skirt has three folds graduated in depth and hem-stitched at the edge.

One of the designs among evening gowns of transparent materials is a lining of delicate color and contrasting tint to give the effect of a shot or opalescent fabric. For instance, the foundation slip may be of a deep pink, the bodice of white with chiffon, and the gown above be made of primrose mousseline de soie. A pleasing effect is produced on some of the French gowns made in this way, by the use of soft, flexible moire for the princess slip.

Blouses of fine wash net to wear with summer dress skirts of crepe de chine, taffeta silk, peau de sole, satin foulard, or velveteen, will rival this season waists of d'espri, chiffon and silk mill. Chiffon is in many instances the only lining used, but if a less transparent net waist is desired, India silk, with chiffon over it, is the lining. The nets used are plain, dotted or attractively patterned with sprays of printed flowers and shadowy foliage, and the waist is slightly tucked in at the hem, and shirred at the top to match the skirt. A pointed girde made of satin ribbon finishes the waist at the belt. The ribbon used is in sweet-pea tints—pink, palest mauve and cream color. The gown is made up over soft taffeta silk of an ivory-white shade.

Short, collarless satin jackets in ivory or cream white are useful as independent small garments for evening wear. They are lined with mauve, hydrangea blue, peach-blossom pink or

pale sea-green silk, and worn over blouses of white guipure, Chamois and other rich lace. These jackets are decorated with cherry or strawberry embroideries, expensive designs in pale gold and pearl passementerie, or with eury-colored patterns in Cluny, Venetian or Bruges appliques laid over silk the color of the lining, in delicate tint gleaming through the fragile meshes of the slender lace sprays and medallions.

White gowns of every description will be in favor throughout the summer season. Costumes and toilettes for morning, afternoon and evening will be made of white silk, satin, sheer wool, silk and wool mixture, Liberty goods, French organdie, India mull, batiste, linen, canvas weaves, etc. All of the handsome "dress" gowns will be all white, including the lace or passementerie trimmings, parasol, hat, gloves, sash and net or lace blouse. On other white models the finest St. Gall embroideries are extensively used. Persian patterns and colorings are still favored on dresses and waists of silk, nun's veiling, India cashmere and drap d'ete. Other fine embroideries are applied to wide and narrow insertions, tiny frills, deep flouncings, jacket fronts, cape collars, fichus, sashes and yokes.

Open meshed silk and wool basket weaves and other semi-transparent materials are used in making some of the most fashionable gowns for next season. In several instances these dresses are mounted over foundations of figured Indian net or tulle, and the semi-transparent fabric thus produced under the semi-transparent fabric.

For attractive spring tulle gowns that can be used for traveling dresses throughout the summer are English stuffs as openly woven as chambray or canvas cloth, also soft light basket cloth in cool, dark blue, brown, green or black. These materials are about forty-six inches wide and cost from \$1.25 to \$1.50 a yard. Basket-woven cloths of two or three colors in small checks are among the new soft wool materials in rose color and white checked with rose, violet, and cream color with stem green, etc. Scotch chevrons combine two distinct colors with white, red, gray and white; lawn, blue and white.

Among the new silks of old-time patterns to be worn this summer are handsome maitresses brocaded in hand-painted effects on grounds of peach de suede—a closely twilled, richly dressed silk, yet without the glaring lustre of satin. Reproductions are also shown of fine faille of lustrous so brilliant that it is called "faillie diamante." This silk is striped with a shaded vine tracery outlined with figures of a contrasting color. Ecclatop silks are shown in rich designs seldom worn save for priestly garments. Soft-finished silks—close copies of those worn in the time of Louis Quinze—have stripes of green satin shadowed rose vines, alternating with pale, olive green stripes strewn with green pinches and small shaded blossoms, while tiny bouquets are on creamy parchment-colored or old ivory satin stripes.

The polka-dotted and shepherd's check silks are two patterns that are found most effective and useful in making over-seed-beds gowns for casual wear during the spring and summer. A few yards of the silk will quickly freshen and quite transform the appearance of the revamped dress. Combining new with partly worn materials is usually unsatisfactory, but in the case of the patterns suggested, the result is almost invariably pleasing, especially if the check or polka-dotted silk used is in color combinations of black and white, blue and white, or cream and brown.

Maize yellow, pastel pink, turquoise blue and other colored pique costumes that will constitute one of the features of summer dress, are this year varied in every possible manner with guipure, Cluny and fine linen laces, medallions in applique effects, strappings, bands of embroidery, cloth or silk; arabesque designs done with white cotton braid, or finished with wider bands, and small oval or pearl buttons. Some very desirable pique suits are to be found at the best department stores. The skirts are tailor-fitted, gracefully made, and trimmed in various ways. The bolero is still the most desirable shape or jacket for these costumes, as it displays to advantage either the shirt waist or blouse of tucked skirt, silk or satin foulard, with the added girde at the waist—this deep or narrow in width, as best suits the figure of the wearer.

Dress skirts trimmed with three flouncings are shown at every importing house of the city. The top flounce is either tucked or shirred just below the hips. The lower edge of the flounce is trimmed with insertion, horizontal tucks, applique ornaments or simply a hem joined with taget or torn stitching.

The clinging grace of the various princess styles are largely responsible for the continued favor they command for wedding gowns and evening dresses. The unbroken lines from shoulder to skirt-hem, at the back, imparts slenderness and length to the figure, and the fronts this season show more than ever attractive effects. Lace, net, crepe or chine, satin royal, satin foulard, Marie Antoinette silk, silk-warp veiling and flexible moire are the materials popular for princess gowns this year, and pretty silk and wool designs are used for inexpensive forms to travel models. Costly lace capes-collars, stole effects, low-cut blouse fronts with transparent yokes, bertha, scarf-finished fichus, etc., are among the accessories used on princess gowns shown among models from Paris that are being copied by the leading American tailors and dress-makers.—N. Y. Evening Post.

## The World Beautiful.

Lillian Whitting, in Boston Budget.

"The glorious summation toward which organic evolution is tending is the production of the highest and most perfect physical life."—Dr. John Fiske.

Over the picturesque, medieval little town of Assisi in Italy there is still felt a wonderful atmosphere of association,—as vital as if seven centuries had not passed since St. Francis met the three mystical angels on the road to Siena, and had his wonderful dream which is commemorated by Giotto in the church of San Francesco in this city. In his dream St. Francis saw palaces and arms. "For whom?" he questioned, and the voice replied, "For thee and for thy soldiers," and he arose full of confidence, and from that moment Jesus became to him a living, present reality, and the only purpose of his life was to break down and efface all outer barriers; to gain complete control of his spirit; to subvert all and efface from daily experiences all that hindered him from doing the will of God. In the church of St. Francis in Assisi, Mr. Symonds thus pictures an Easter morning:

"The whole low-voiced building glows dusky, the freestone roof, the stained windows, the figure-crowded pinnacles blending their rich but subdued colors, like hues upon some marvellous mother's wings, or like a deep-toned rainbow mist discerned in twilight dreams, or like such tapestry as Eastern legends, in ancient days, wrought for the pavilion of an emperor. Forth from this maze of mingling tints, indefinite in shade and sunbeams, lean earnest, saintly faces—ineffably pure—adoring, pitying, pleading; raising their eyes in ecstasy to heaven, or turning them in ruth toward earth. Men and women of the world was not worthy—at the hands of those old painters they have received the divine grace, the dove-like simplicity, whereby Italians in the fourteenth century possessed the irrecoverable secret. Each face is a poem; the counterpart, in painting to a chapter from the Florentine of St. Francis. Over the whole scene—in the architecture, in the frescoes, in the colored windows, in the gleam, on the people, in the incense, from the chiming bells, through the music—broods one spirit; the spirit of him who was the co-operated, co-transfused with Christ; the ardent, the radiant, the beautiful in soul; the suffering, the strong, the simple, the victorious over self and sin; the celestial who trampled upon earth and rose on wings of ecstasy to heaven; the Christ-inspired saint of visions super-natural and life beyond the grave. Far down below the feet of those who worship God through him, St. Francis sleeps; but his soul, the incorruptible part of

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him, the message he gave the world in the spaces around us. This is his life. He all it like an unseen god. Not at all like an abiding spirit felt everywhere, now, as an absorbing in itself all mysteries, all burning exaltations, all love, self-sacrifice, all the thought of Christ, all weeping, all hush wrought for men.

This vivid interpretation of the scene, the hour, is before one when contemplating the rich, dim interior of the historic church in which a remarkable life is symbolized, far-away saint,—a mere abstract name in a Roman calendar,—is Francis of Assisi to the visitor who comes into a sympathetic atmosphere with this city of legend and story, but a living presence of today into whose realm of thought the mind may penetrate. St. Francis became a power to be felt through all the ages because he never hesitated to utter that which he felt to be the highest truth, for any fear of its being too much in advance of his time. He gave of his best; he left the results with God. He was the spiritual hero who bravely, unflinchingly gives himself to that which he believes to be his duty; unheeding if men misunderstand or misinterpret; keeping true to the ideal revealed to himself alone. The actual life of one who has thus lived the truth, as he sees it, becomes one of the most pathetic and impressive beauty and compelling power. Perfect loyalty to the Divine Leading is the one—and the only—way of life. Our courses and choices may be existence; but this alone is life,—this, alone, it is to "know God." Born of humble parentage in 1181; dying in 1226,—this life of forty-five years has left its impress on the Christian world, because its supreme purpose was to co-operate with the will of God. No austere monk was St. Francis; his teachings had the grace of all joy and sweetness and poetic exaltation. If he endured temporary hardships they were lost sight of



### Miscellaneous.

amble position in which he started. His roughness for horses taught him more about them than an experience taught many of the others; he could always lead them by it, just as a woman who loves children can always make them love

When fifty of the pirates left their fleet in a secluded inlet and presented themselves to the Namon's captain as honest sailors looking for a job.

They were hired and the Namon sailed away, the captain little thinking that his crew of the best native sailors he had ever seen was almost

men's heads. It is served in sticks as long as a baseball bat, or in small loaves or pones, one of which is supposed to serve for the morning meal of an ordinary citizen.

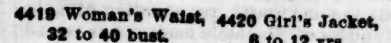
—Dealers in charcoal in Havana are said never to have yellow fever, while in lay circles it is advised always to have it about during its

is of a grayish color, and, with one exception, is the heaviest substance known. Its fusing point is extremely high, and this property, together with its freedom from tarnishing, causes it to be largely used for the manufacture of crucibles and other vessels required by scientists to stand a very high temperature. It is also

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## Home Dressmaking

Printed by HAY Manton.



**Woman's Waist Closing Invisibly at Center**  
Front 4412

**To be Made With or Without the Lining.**  
The waist consists of the lining, fronts and back. The back is tuckered for its entire length at the center. The fronts in a full length group at each side of the front, and again at the shoulders to yoke depth. Between these groups of tucks the trimming is applied. The closing is made invisibly at the front beneath the tucks. The sleeves are the new full ones, and are tuckered at the elbow.

The quantity of material required for the medium size is 4 yards 21 inches wide,  $\frac{3}{4}$  yards 27 inches wide,  $\frac{3}{4}$  yards 32 inches wide or  $\frac{2}{3}$  yards 44 inches wide.

The pattern, 4419, is cut in sizes for a 32, 34, 36, and 40-inch bust measure.

**Girl's Jacket. 4490.**  
To be Made With or Without Single or Double Cape.  
The original is made with one cape which is trimmed at its outer edge, but double capes can be used if preferred or the neck can be finished with a stole only. The jacket is made with fronts and back and is shaped by means of shoulder and under-arm seams. The back is laid in an inverted pleat at the centre, and the fronts in plaits which extend from the shoulders, all of which are stitched to yoke depth. The sleeves are full and are finished with a cuff.

The pattern, 4420, is cut in sizes for girls of 6, 8, 10, and 12 years of age.

4421 House Maids Gown 32 to 40 bust.

4422 Child's Jacket, 1, 2, 4 and 6 yrs.

Housemaid's Gown, Consisting of Spence Waist and Six-Gored Skirt. 4423.

To be Made with Inverted Plaits or Gathers to the

The dress consists of the waist, which is made with fronts and back, and of the skirt, which is made in six pieces. Both fronts and back of waist are gathered slightly at the waist line, the back being drawn down snugly, but the fronts are allowed to blouse slightly over the belt. The skirt can be laid in inverted plaits at the back or gathered, as preferred, and is joined to the skirt, the closing being at the left. From


The pattern, #421, is cut in sizes for a 32, 34, 36, 38 and 40-inch bust measure.


**Child's Jacket for House or Street Wear**  
4422.

Designed to be Made from Bordered Material.

The jacket consists of the yoke to which the plastrons in front and back, cut in one piece, are attached. The neck is finished with a turn-over collar and the sleeves are the new full ones, which are tucked above the elbows but form full round sleeves and

The quantity of material required for the medium size (4 years) is  $\frac{3}{4}$  yards of bordered material 2 inches wide, with 1 yard of plain material for sleeves; or 3 yards 2 inches wide or  $1\frac{1}{4}$  yards 4 inches wide, when plain material is used.

 **4423 Men's Negligee**  
Shirt, 36 to 42 breast.

 **4424 Tucked Triple**  
Skirt, 22 to 33 Waist.

**Men's Negligee Shirt with Tucked Boon**  
4423.

The comfort of the negligee shirt is too well established to require urging. The advantages of those made at home are many, but prominent among them is the certainty of a satisfactory fit. This very stylish model is suited to all the season's materials, but involves no skill beyond that of the average needlewoman. The original is made of white madras and is held at the front by pearl buttons.

The shirt is made with a shallow yoke at the back which extends over the shoulders at the front and to which the body portions are attached. The bosom is tucked and held at the lower edge by a straight band. The sleeves are in regulation shirt style with straight cuffs. The collar can be of material or of white linen as preferred.

The quantity of material required for the medium size is 4 yards 32 inches wide.

The pattern, 4423, is cut in sizes for a 36, 38, 40 and 42 inch bust measure.

**Woman's Tucked Triple Skirt. 4434.**

Triple skirts make a feature of the season's styles and are exceedingly graceful. This very stylish one is made of cream-colored canvas veiling with trimming of applique lace and is stitched with corticea silk, but the design suits all the silk, wool, cotton and

The quantity of material required for the medium size is 4 yards 21 inches wide, 3 yards 27 inches wide.

The pattern, 4494, is cut in sizes for a 22, 24, 26, 28 and 30-inch waist measure.

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## HOME DRESSMAKING

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## The Horse.

### Horse Show Winners.

In number of awards received at the recent horse show in Boston, E. D. Jordan is found to have come out first in the grand contest, with a total of forty-nine ribbons and \$3045 in money and plate. With his fine string of Hackneys and other harness horses he took no less than twenty-six first prizes and championships—a record which no other exhibitor so much as approaches. Thomas W. Lawson, though his Dream-world entries brought him only thirty-one ribbons, won a larger amount, his money and plate footing up to \$3000. His eleven firsts and twenty seconds make him second to Mr. Jordan in number of prizes. J. Malcolm Forbes, though he took only four prizes with two of his horses, stands third in the list for value, his awards amounting to \$1250, of which his great stallion Bingen alone won \$1150.

Dr. John L. Wentz of Scranton, Pa., a large exhibitor, won eight firsts, three seconds, six thirds and two fourths, representing a total value of \$1200 in money and plate. Strauss & Hexter, New York dealers, won \$1005, taking six firsts, five seconds and one third. Crow & Murra, Canadian dealers, helped to pay expenses with a total winning of \$975. E. T. Stotbury of Philadelphia won every time he went into the ring in the roadster class, taking eight firsts and \$900 in money. Mrs. John Gerken of Long Island, a very heavy exhibitor, won eight firsts, five seconds, six thirds and one fourth, representing \$825. L. J. Knowles of Magnolia made a fine record with his new champion, Dr. Selwont. The big high-stepping chestnut was shown four times, taking three blue ribbons and a championship.

The name of David Bonner as one of the nominators in Readville's 2.12 trot is taken to mean that Peter Stirling is headed for the race made famous by the contests of Grattan Boy, Borsama, Charley Herr, Onward Silver and Major Delmar. Peter Stirling won the Kentucky Futurity in 1901 and was not raced last year. He shortly goes into Carl Burr's hands for a brief campaign over Eastern tracks. He is owned by a close friend of David Bonner, Frank Work.

George Ketcham, owner of the world's champion trotter Crescens (2.02 1/2), announces that it is probable that the horse will never race again. If Mr. Ketcham does conclude to send the champion another trial, he says it will be for the purpose of breaking the world's record to the high-wheel sulky, 2.04, held by Sunol. "There is one other exhibition Crescens may give, and then he will be retired permanently to the stud," said Mr. Ketcham. "I am going to Europe in the fall and will take the horse with me. I may arrange for a big exhibition in London for the benefit of some charity. That will be the last time the champion will ever be exhibited."

Baxter, the bay gelding owned by C. W. B. Edwards of Hartford, Ct., is now thirty-two years old. When he was twenty-eight years old he took his mark of 2.44 at the Brooklyn Fair. He is a good feeder, needs no specially prepared food and contents himself and thrives on good hay and oats. He receives good care from Mr. Edwards, who has owned him for twenty-nine years. In fact, Mr. Edwards bought him as an unbroken three-year-old, and has had the pleasure of handling him from the time he first put a harness onto him. He receives only moderate work and takes his exercise principally in a big box stall. He is absolutely sound, and moves almost as free and easy as a four-year-old. Baxter was sired by Hambletonian 10.

George Wilkes, foaled in 1856, died in 1873, was the most speed-prolific son of Hambletonian. This is his record: Seventy-two trotters, eleven pacers, 102 sires of 1740 trotters and 775 pacers, and ninety-nine dams of 128 trotters and forty-five pacers.

A large farm horse, when not at work, may be given twenty pounds of hay, and if an easy keep will need very little grain. But when at work the hay should be reduced to twelve or fourteen pounds, supplying the wear of muscle by good heavy feeding with oats and cracked corn.

### Notes from Washington, D. C.

"Tankage or Meat Meal for Pigs" is the subject of a short description of pig-feeding experiments which is being prepared by the experiment stations division of the Department of Agriculture. Some experiments in Indiana have shown great advantage in tankage as pig feed. It contains a high percentage of protein and an amount of phosphoric acid largely in excess of that found in any corn or by-product of mills. Phosphoric acid for pigs is useful in building up bone structure, an important feature with our pigs of today, while the protein, of course, has a universally recognized value. The weakness is pointed out of using corn meal as a single ration in feeding growing, fattening pigs and also the great value of adding a food rich in protein (such as tankage) to the corn, thus producing a better balanced ration and securing more desirable results in both health and growth. A ration is suggested consisting of five portions of corn to one of tankage or meat meal. Experiments are cited where such a ration gave over thirty per cent. greater net proceeds than a corn ration alone. Reports to the department from various sources indicate that the use not only of tankage but also of dry blood for feed for all kinds of farm animals is increasing. In addition to being a nutritious food, dry blood has been found by the Kansas Experiment Station to be an excellent remedy for scours in calves. The value of beef meal as a chicken food is generally recognized.

The use of steam for the purpose of cleaning dairy utensils, according to the Department of Agriculture, is not only efficient as a dirt destroyer, but as a germ eradicator there is nothing better. It penetrates to the bottom of the seams and heats the metal to such a degree as to kill most of the dangerous germs.

Several of the experiment stations have made tests to determine whether typhoid and other germs can be absorbed into udders of milk cows from external sources. This has been found not to be the case to any extent. An Arizona station report, however, says that "when a cow wades belly deep into a filthy pool festering in the heat and foul with scum, her milk will invariably suffer." Millions of bacteria, adhering to her hair and udder, will, when she is dried off and milked, find their way into the milk pail.

A summary of the results of all the experiments at the Government stations throughout the country, about to be published by the Department of Agriculture, seems to show that where the cost of apply-

ing the water is not too great, irrigation of strawberries is of great value in insuring a full crop of fruit each season. The water should be applied at about fruit time, in the furrows, and allowed to slowly flow down them, rather than by flooding. This may seem like a suggestion of little value at this season of the year when it is too late to water this crop of berries. It is not too early, however, to begin to plan for water for next year's crop, as it must be remembered that water cannot be applied out of hand like fertilizer. In most cases, even with the water easily available, quite a little system will have to be devised to irrigate the strawberry patch or other garden crops.

Beans of various kinds are probably the cheapest substitute for meat. As nitrogen or muscle-producing foods, they are a great deal cheaper than meat. Under beans would be included such plants as the cowpea, the soy bean, the navy bean, the kidney bean, and so on. On an average, American dried beans contain between twenty and twenty-five per cent. of protein or nitrogen matter. The Japanese obtain their protein almost solely from the soy bean, which they prepare into various dishes, eating little or no meat. They are a wiry and enduring lot. Stock will thrive on legumes alone, and in some of the Southern States horses and mules work hard on rations of cow-peas, solely the vine and bean, and keep in good condition. In food experiments noted by the Department of Agriculture the protein of beans, which have been found digestible by the human stomach, ranges from seventy-two to eighty-six per cent., which is considered a fairly digestible food. A method of preparation recommended is employment of baking-soda to soften the skins so that the latter can be readily removed—a half teaspoonful of soda to two quarts of water and a pound of beans. Bean skins are composed largely of crude fibre which is not easily digested, and experiments show that this treatment adds to the digestible and food value of beans.

Neglected orchards are common everywhere. This is especially true of the "home orchard." Many of these orchards, if they bear at all, have become soil exhausted, and produce only inferior-sized fruit, and even that only in occasional seasons. Such orchards are the homes of worms and disease, and serve to re-stock the more carefully sprayed and tilled orchards of neighbors with these pests. Marketable fruit from them is almost wholly unknown. They are an eyesore and unprofitable. An orchard of this kind has recently been made the subject of an investigation by Prof. F. W. Card of the Rhode Island station, and the results are being published by the Department of Agriculture. The purpose of this investigation was to ascertain whether with the ordinary means within the reach of farmers, such as pruning, tillage, spraying and fertilizing, such an orchard could be rejuvenated and put on a paying basis. The orchard selected for the experiment was a "home orchard" of less than an acre in extent, and about twenty-five years old. The trees had made but little growth, and the trunks were covered with moss.

The first season the trees were pruned and the rough, loose bark scraped off the limbs and trunks. A half ton of commercial fertilizers—made up of 125 pounds of nitrate of soda, one hundred pounds of dried blood, 650 pounds of acid phosphate and 125 pounds of muriate of potash—was applied and the ground plowed and kept tilled until midsummer, after which a cover crop was planted. It was desired to get the trees started as once into a good wood growth, hence nitrate of soda was used. Well-rotted barnyard manure would probably have answered the same purpose very well, besides furnishing a considerable amount of humus to the soil. After the blossoms fell the trees were sprayed twice with Bordeaux mixture and Paris green. The Bordeaux mixture cleared the limbs of hanging moss and the Paris green poisoned many of

the worms. At the end of the first season there was a marked improvement in appearance, yet the results were not striking.

The neglect of years cannot be remedied in a single season. The treatment the second season was very similar to that of the first. The trees were sprayed with Bordeaux mixture before the buds opened to prevent apple scab, and again after the blossoms fell. The cover crop of the first year was peas and oats. As these made only a small growth the nitrogen was continued in the commercial fertilizers applied, but instead of one thousand pounds only half this amount was used. Good tillage was continued. The growth of the trees the second season was not large, yet it was thrifty and of healthy appearance, and some good fruit was obtained, the Baldwin and Russet trees being well loaded.

The following season, with only a part of the trees bearing, about \$80 worth of fine fruit was obtained. Many of the trees in the orchard were early sorts. Of the fruit sold \$50 worth came from the Russet and Greening trees. Here were excellent results in three years from only very ordinary treatment. GUY E. MITCHELL.

### The Louisiana Purchase.

It is common to assert that the Louisiana Purchase in 1803 was made by President Jefferson. The fact is that it was arranged for without his knowledge by Livingston and Monroe, who had been sent to treat with Napoleon for an entirely different purpose, and Jefferson approved it with great reluctance. He even went so far at first as to say that he could not approve it because it would make "waste paper of the Constitution."

After it became plain that the people wanted the treaty ratified Jefferson assented to it and planned to secure an amendment to the Constitution ratifying it. Jefferson said that in buying the land he had exceeded his powers as a strict constructionist of the Constitution, and that it was like using for investment the money of a war, of whom he was the guardian, without warrant of law. He added: "If it should be disapproved, I must get out of the scrape as I can."

The Louisiana Purchase added a domain to the United States larger than that of the country as it then existed. In 1803 the area of the United States was 827,844 square miles. The territory added to this, by the purchase of Louisiana, consisted of 1,171,390 square miles. It included 2300 square miles in what is now known as Alabama and 3600 square miles in Mississippi, comprising land on the Gulf of Mexico, all of what is now known as Louisiana, Arkansas, Mississippi (not including the 3000 square miles already referred to), Iowa, Nebraska, the Dakotas, Minnesota west of the Mississippi, all of Kansas but the southwest corner, the Indian Territory, and those parts of Colorado, Wyoming and Montana east of the crest of the Rocky Mountains. The price paid for this vast area was 60,000,000 francs, or about \$15,000,000.

In 1803 Spain had retroceded all this territory to France by a secret treaty which provided that France should never cede it to any other power than Spain. The southern border of the United States at that time was the northern border of Spanish Florida, which ran west to the Mississippi. We held no land west of the Mississippi; we wanted access to the sea; we controlled the east bank of the Mississippi only to the Florida line. Spain had agreed in 1795 to let us have access to New Orleans as a "place of deposit" for our produce. This agreement was to last three years with the right of renewal. Spain declined to renew it.

The Spanish governor, or intendant, as he was known at that time, was named Morales. He not only shut the Americans out of New Orleans, but refused to designate another "place of deposit." The West was at once roused into a rage. The Federal government finally felt itself called upon to make a demonstration against

Spain. The War Department sent three regiments of the regular army to the Ohio. The people of Mississippi began to take up arms and finally Spain yielded.

Morales received orders to give the Americans their former privileges, and good feeling once more ruled between the people of Louisiana and those of the United States. Trade increased and a great revival of immigration followed. This tide of immigration grew so rapidly that Spain became alarmed for its own position in Louisiana and the future of the Catholic Church, and the King gave orders that no more land and privileges should be given to the citizens of the United States. This provoked another storm. It prostrated commerce and made welcome the rumors that France was about to take the country.

Napoleon forced Spain to give Louisiana back to France and then shut Americans out of New Orleans. Jefferson sent Livingston and Monroe to France to secure a treaty, if possible, which would give us the east bank of the Mississippi, or, at any rate, the guarantee of free navigation on the river.

Napoleon was in straits. His army, sent to San Domingo to secure a base of supplies for a force of twenty thousand men to hold Louisiana against attack by Great Britain, had been wiped out by yellow fever. War was coming on with England. Napoleon needed money and could not spare troops to hold Louisiana. He preferred that the United States should have the territory rather than England. His treaty with Spain said he should not cede the land to any other country. He did not cede it; he sold it.

Napoleon told the American commissioners that he could have it for sixty million francs. Livingston at once saw the possibilities of the case and, without authority, concluded the negotiations for it and sent the documents home. Jefferson and his advisers were utterly astonished and secretary Madison rebuked Livingston for exceeding his powers. The treaty with Napoleon was signed on April 30, 1803, and was ratified by Napoleon in the following May. On Aug. 12 Jefferson said openly that he was opposed to the purchase, but, yielding to public sentiment, he called a special session of Congress, and on Oct. 17 of that year, the treaty, after sharp debate, was ratified, the Federalists under Hamilton coming to the aid of Jefferson against his own party and against his own political theories.

The people of the territory were not consulted in any degree. They were annexed outright to our Government and system without their consent. The treaty nearly failed, and at times Napoleon showed signs of backing out. It has been said that the purchase, "next to the negotiation that secured our independence, was the most important the United States ever entered into," and subsequent events have proved the correctness of this view.

What is known as Oregon and Washington we secured, as against the claims of England and Spain, first by asserting that England, in 1763, had ceded its claim west of the Mississippi to France, and that we had succeeded to that claim; second, by the right of the great exploration trip to the Pacific of Lewis and Clark sent out in 1804 by Jefferson, and third, by direct treaty with Spain in 1819.

Gradually the southwest boundaries of the tract were made plain and secured by treaties. Jefferson, according to Judge Conley, had said: "To the waters of the Pacific we can find no claim in the right of Louisiana." We got the right, however, by diplomacy.

At first the Louisiana Purchase was divided into two parts. Below the thirty-ninth parallel it was called the Territory of Orleans. Above that the tract was known as the District of Louisiana. This district was attached to the Territory of Indiana for governmental purposes. In March, 1805, the District of Louisiana became the

Territory of Louisiana. In June, 1812, the Territory of Orleans became the State of Louisiana, and then the upper part was made into the Territory of Missouri.—Collier's Weekly.

### Gain and Loss by the Trolley.

The trolley car has been hailed as the new missionary of the remote towns. But, like the rain, the trolley serves all alike. The car which carries a man to the city church may convey a dozen others to the city saloons and return with a load of urban toughs prepared to hold a cock fight somewhere beyond police limits.

Better transportation is of course a good thing in itself. But some of its effects will bear watching. For instance, it lessens the strict personal accountability now ruling in most small towns. Every one knows pretty nearly what the others are doing, and the standard is kept up partly by fear of public opinion. But the trolley arrives and whisks the citizens in and out of town at any hour and as often as they please. People travel more, and their whereabouts and activities are less known in the neighborhood. The conditions approach more nearly those of the large cities where personal conduct depends much upon character, and little upon lack of opportunity or upon fear of public opinion. Facilities for good and evil will be increased. But the net result will be to give the small towns a position nearer the advance line of modern development, and the average advantage of the change can only be doubted by the very few who do not believe at all in progress.

I don't know much geometry, But this I will declare: De man dat's always hangin' round Is seldom out of square. —Washington Star.

This world is like a looking glass, Wherein one oft beholds his face; It frowns on those who grimly pass, But answers smiles with jovial grace. —Washington Star.

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